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The Marbridge Plan: A Texas Experiment in Habilitation for Mentally Retarded Youth . 346
JOHN R. PECK

A Comparative Study of the Efficiency of Three Group Pure Tone Screening Tests for Public School Children 351
LOUIS M. DICARLO
ERIC F. GARDNER

A Review of Barbara 360
EDGAR A. DOLL

Guideposts for Helping Parent Associations Develop Programs of Education for Children with Cerebral Palsy 361
JOSEPH FENTON

BULLETIN 365

SPOTLIGHTING THIS ISSUE . cover 2

HERE AND THERE 371

OUT OF THE CLASSROOM 376

CURRENT LITERATURE 384

CURRENT AUDIO-VISUAL MATERIALS ON THE EXCEPTIONAL 391

DATES TO REMEMBER . . . . . cover 3

Spotlighting THIS Issue

"The Marbridge Plan: A Texas Experiment in Habilitation for Mentally Retarded Youth." by John R. Peck

This article reviews the four-year history of the ranch for retarded males located 17 miles south of Austin. Maintained by a privately financed, non-profit foundation, the plan offers a residence and training program. Eligibility for graduation from Marbridge with a certificate for job placement outside depends on progress in eight areas. This is an evaluation of the plan, a survey of past performance, and hopes for the future of this program.

"A Comparative Study of the Efficiency of Three Group Pure Tone Screening Tests for Public School Children," by Louis M. DiCarlo and Eric F. Gardner

Early and systematic detection of hearing loss is the best way to successfully prosecute an adequate medical and educational program for children with impaired hearing. Described is the procedure and analysis followed in testing an entire school of children from kindergarten through eighth grade.

"Barbara: A Prologue," by Willard Abraham Reviewed by Edgar A. Doll

Dr. Doll presents a very personal review of this book about the mongoloid daughter of his friend and colleague, Willard Abraham. Dr. Doll writes feelingly of this very human diary, which a stunned father addresses to his infant child. Here is the insight, as well as the sorrow, and understanding of those who work with and love exceptional children.

"Guideposts for Helping Parent Associations Develop Programs of Education for Children with Cerebral Palsy," by Joseph Fenton

Here is a summation of past ideas about the child with cerebral palsy and a word of encouragement and advice to groups working to further the education of these children. The author states his case thusly: "Treating limbs alone falls short of a solution to the child's problem. When the point of maximum benefit from therapies is reached there still remains major physical limitations as well as diverse personal problems. The cerebral palsy program must be re-evaluated. The energies of parents must be redirected if total habilitation of the child is to take place."

EXCEPTIONAL CHILDREN

Journal of the International Council for Exceptional Children

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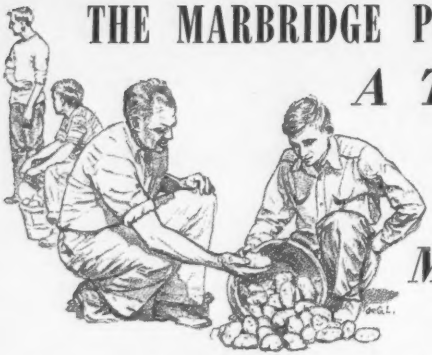

THE MARBRIDGE PLAN: *A Texas Experiment in habilitation for Mentally Retarded Youth*

JOHN R. PECK

HABILITATION, the final step in preparing the subnormal individual for a productive life, is the capstone of all special education for the mentally retarded person. Yet, despite its importance, this area has been largely neglected in the past, probably on the fallacious assumption that mentally retarded young men and women, after 12 years of special schooling are prepared to fit themselves into competitive society. Although the majority do, records show that many thousands merely stay at home in a state of social and vocational atrophy for want of special habilitation and placement programs specifically designed for them.

Recognition of this need prompted the organization of the Marbridge Foundation in Austin, Texas, four years ago. Although the experiment was slow and fumbling in its initial stages, it has now reached proportions adequate for critical measurement and evaluation.

The foundation, a privately financed, non-profit organization, maintains a ranch for retarded males 17 miles south of the city of Austin. Marbridge Ranch is the residential home of 26 young men, the majority of whom remain from one to two years. A survey of the Marbridge plan, undertaken during January 1958 by the author, resulted in the following findings.

Description

Facilities include 85 acres of rolling land, 40 percent of which is under cultivation; a ranch house extended into several wings including dormitories, dining room, kitchen, and main lobby; outbuildings including barns, corrals, poultry houses, and hog houses; a complete dairy; a commercial type laundry; frozen food locker; woodworking shop; ceramics and crafts shop; recreation hall; a bus, a station wagon, a truck, and a tractor. All buildings including poultry houses and dairy are equipped with electricity and plumbing. A football field was laid out by the trainees in 1957.

Planned for 1958 is a new building to contain training stations for automobile servicing, electrical instruction, plumbing instruction, a paint shop, upholstery shop, and a fully equipped gymnasium.

Staff

Chairman of the board of directors is an Austin business man who is a past president of the Texas Association for Retarded Children. Other members of the board include the director of the Texas Department of Public Welfare, a department store manager, a minister, a bank president, and a university professor.

The professional advisory committee includes two professors in special education and one in psychology from the University of Texas; two physicians, one in psychiatry and one in medicine; and one representative each from the fields of agriculture, vocational rehabilitation, and the state board of hospitals and special schools.

Full-time administrative staff members are (in addition to the director): an assistant director who also serves as the agriculture supervisor; a supervisor of industrial training; a ranch house supervisor; a farmer; and a cook.

Part-time staff members are: an athletic coach who "lives in" as a counselor, a ceramics teacher, and a music and social training teacher. Serving

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in the capacity of education and training consultant is a member of the University of Texas educational psychology staff who specializes in the field of mental retardation.

Criteria for Admission

The admissions committee consists of (1) the education and training consultant, chairman; (2) a physician; (3) a member of the state division of rehabilitation.

Criteria for admission include both medical and psychological evaluations by competent professional individuals or clinics; a history of the applicant's schooling and social and emotional adjustment; and a personal interview before the admissions committee.

Eligibility is based upon the following considerations:

(1) Chronological age, 16 to 25. Under some circumstances, candidates up to age 30 are considered.

(2) Mental retardation indicated by individual psychological tests, ranging (for the habilitation group) from about 50 to 80 IQ, and social quotient below average.

(3) Academic retardation may fluctuate anywhere from about second to ninth grade. Practical knowledge, or non-academic proficiencies may be of more value to the candidate than school achievement.

(4) Freedom from chronic disease, crippling anomolies, or other physical condition which may impair successful placement.

(5) No history of delinquency or other indications of deep-seated emotional instability.

(6) Prognosis for successful placement in one to two years.

Referrals

Referrals are made by (1) parents; (2) public school administrators; (3) clinics; (4) practicing physicians; (5) state schools for the mentally retarded; and (6) regional offices of the state rehabilitation division. When a candidate under 21 is referred by the rehabilitation division, whose family cannot meet the costs, this agency underwrites a portion of the boy's training and subsistence expenses.

Program

Boys get a minimum of one year's residence and training, with a review at the end of this time to determine whether an additional half-year or full year will be required. The majority finish in one year.

The work day begins with a one-hour chore period and ends with another chore period. These chores include numerous tasks, in which the 26 trainees are rotated every two months, involving stock management, milking, feeding, cleaning, care of poultry, kitchen duty, dining room duty, and similar daily activities.

During the morning the trainees are assigned to five work classes, five boys to a class, where they get specific education and instruction in agriculture, industrial arts, leathercraft, ceramics, and care of rooms and belongings.

One hour of rest after the noon meal is followed by a group discussion and planning period with all boys participating. Then the boys are divided into two groups of 13 each for the afternoon sessions. These sessions are divided into ranch maintenance, fence repair, improvement of grounds, weeding and cultivating, harvesting, butchering and preparing meat for the freezer, and similar seasonal activities. Late afternoon is devoted to football, basketball, baseball, gym, and swimming in a nearby stream.

One evening weekly is set aside for social affairs, music education, and instruction in dancing. Sorority girls from the University of Texas are frequent guests to these functions. Non-denominational Sunday School and church attendance is provided on Sundays. A bus carries the group to University athletic events, shopping trips, camping trips, and other kinds of entertainment. A typical recent excursion was made for the purpose of collecting driftwood from the shores of a large lake to use in the industrial arts woodcraft project.

Habilitation Goals

Eligibility to graduate from Marbridge and be certified for job placement outside depends upon

progress in eight areas: (1.) vocational proficiency, (2.) physical health and stamina, (3.) social adjustment, (4.) personal care and appearance, (5.) mental maturity sufficient for the job goal, (6.) acceptable use of leisure time, (7.) emotional stability, and (8.) adequacy of practical information. Trainees are continually rated on these points, and subpoints under each category, at regular staff meetings, following a prescribed check list.

During the last two months prior to completion of training, the prospective graduate is taken into the city of Austin occasionally to be interviewed by interested employers. He goes from the ranch straight to his first full-time job. Provision has been made for him to room and board at a facility maintained by the same skilled counselor who places him in the job and follows up on his performance. This facility, the Austin Career and Guidance Center, is his home until he is fully capable of going on his own, or he may profit more by remaining here indefinitely. Part of the total plan is to obviate the necessity for him to return home to live with his family.

Typical Marbridge Cases

Morris: Entered at age 29; referred from state school; trained for 15 months; IQ 68; endogenous; social quotient subnormal. Amiable disposition; very strong physically; relaxed, untiring, loved to work; reliable and honest in all situations; languid speech; no physical defects; popular with other trainees, but not a leader; highly motivated to succeed through his own efforts and to remove the stigma of having once lived at a state school.

Placed with a lumber firm; responsible for helping to load and unload lumber, stack lumber, ride with driver as a helper; regarded by his employer as more valuable than most of the men in his yard doing similar tasks.

George: Entered at age 21; referred from state school; educable; endogenous; social quotient subnormal.

Shy and friendly; physically delicate; very quiet and soft-spoken; was fitted with glasses soon after training began; consistently reliable in chores and training classes; learned more rapidly than most of his peers; was rounded out notably in social adjustment through media of social training, religious activities, and music.

Trained one year; placed with a furniture store; responsible for furniture refinishing cleaning and storing, under supervision. George and employer both highly pleased. Very reliable.

Roy: Entered at age 18; referred by parents; IQ 68; made excellent social appearance, but had deep feelings of inadequacy; brain injured.

Capable of learning vocational skills easily; handsome; strong and healthy; extroverted; inclined to be "bossy"; frequently at odds with boys of less intelligence; sensitive regarding his shortcomings; temperamental, could be either charming or antagonistic.

Trained 12 months; placed with a hospital; responsible for preparing trays for patients and delivering these to proper stations; laid off after one month because of "smart aleck" behavior with female employees, and sharp tongue; now living with parents and being groomed for a different type job under surveillance of a state rehabilitation officer. Prognosis for success: fair to poor.

Bill: Entered at age 19; referred from state school; educable; social quotient subnormal; endogenous.

Strong, rugged, obese; extroverted; good in athletics; very aimable and talkative to the point of being a bore; loved to work and pit his strength against the task at hand; principal difficulty, inclined to slow down work in order to talk; keenly interested in opposite sex; honest and and reliable; capable of taking direction; showed some initiative on a few easy tasks.

Trained for one year; placed with same lumber firm as Morris, doing same type of work; not as successful as Morris but doing well; social adjustment off the job more of a problem to him than to the

MARBRIDGE FOUNDATION: STATISTICAL DATA ON CASES ADMITTED JANUARY 1954 TO JANUARY 1958

TABLE 1 — AGE DISTRIBUTION, N-41

Age:	Habilitation Program	Home Program
16	2	2
17	4	0
18	5	1
19	3	2
20	3	1
21	4	1
22	0	1
23	2	0
24	0	1
25	1	0
26	0	1
27	1	0
28	0	0
29	3	1
30	1	0
33	0	1
	N-29	N-12

Habilitation Program:	Home Program:
Mean Age — 21	Mean Age — 22
Median Age — 19	Median Age — 20
Range — 16 to 30	Range — 16 to 33

MISCELLANEOUS DATA

Total admissions:

- 1954 — 4
- 1955 — 6
- 1956 —13
- 1957 —13
- 1958 (to date) — 5

Placements: 10

In training: 17 (Jan., '58)

Dropped: 2

Home group: 12 (3 dropped)

Average length of training: 15 months

Shortest period of training: 11 months

Longest period of training: 27 months

Maximum enrollment of 26 reached, January, 1958

Average turnover anticipated, 5 to 10 cases per annum

TABLE 2 — IQ DISTRIBUTION — N-41

Case No.	Habilitation Program	Home Program
1		46
2		45
3	80	
4	65	
5	55	
6	68	
7		45
8		51
9	65	
10	65	
11		62
12	54	
13		53
14	57	
15	64	
16	70	
17	62	
18		45
19	68	
20	60	
21		53
22	65	
23	70	
24		41
25		46
26	51	
27	57	
28		30
29	75	
30	70	
31	71	
32	68	
33	61	
34	64	
35	69	
36	80	
37	73	
38		52
39	50	
40	73	
41	51	
	N-29	N-12

Habilitation Program	Home Program
Mean IQ: 61	Mean IQ: 47
Range: 50 to 80	Range: 30 to 62

others; most gregarious of the Marbridge graduates.

John: Entered at age 18; referred by parents; educable; social quotient subnormal, but from excellent cultural background; brain injured.

Sensitive, energetic, extroverted; linguistic talent tended to give him the appearance of more intelligence than functioning indicated; mechanical interests; healthy, but slight of build and not eligible for hard manual labor; sincere and honest; showed occasional disorganization in judgment and reasoning typical of brain injured individuals.

Trained 20 months; placed with the Texas Education Agency where he assisted in the book repair and reconditioning shop; usually performed his job adequately, but needed more supervision than some of the Marbridge graduates.

Harold: Entered at age 22; referred by parents; educable; social quotient subnormal; brain injured.

Strong, rugged, healthy; taciturn at times but never unpleasant; responded well to vocational and agricultural training; good in athletics; willing worker, but not highly motivated in Marbridge setting; reliability in work habits improved remarkably during last three months of training.

Trained one year; placed with a retail paint store; responsible for care of storeroom, stacking, and packing, and filling orders written by salesmen; employers speak highly of his reliability and regularity.

Evaluation

The newness of the Marbridge plan makes it difficult to evaluate effectively. Its weakness lies in the following areas: (1.) the staff is not specifically trained in the field of mental retardation, mental deviation, and brain injury; (2.) the director does not reside at the ranch, nor come daily, although he is constantly in touch with the assistant director by phone calls and visits; (3.) there is not ample opportunity for the trainees to learn such practical tasks as making bus connections, banking, shopping, and socializing with the opposite sex as would be possible in the city; and (4.) nine of the present group, because of a low level of intellectual functioning, are not habilitable and will remain at the ranch as the "home group" indefinitely.

On the other hand, the residential atmosphere in a small community group of 26, where character training is a round-the-clock possibility, and where rigid work habits can be combined with improved living habits, appears to make rather dramatic changes in most of the trainees. The dynamic effect of the group upon the individual is noteworthy, and this may account for many of the boys being ready to move on after one year's training. Finally, the opportunity is more decisive and distinct than in the usual sheltered workshop, because it separates the individual from such home ties as overprotection and over-reliance upon adult decision making.

A clue to the success of the Marbridge ranch may lie in the reports of the staff on parents' evaluation. One parent's comment was typical of most of them, "This is the kind of place we have been trying to find for our son, where he can learn the importance of work, and it is the first time we have found anything like it."

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A comparative study of

The Efficiency of Three Group Pure Tone Screening Tests for Public School Children

LOUIS M. DICARLO

ERIC F. GARDNER

Introduction

The successful prosecution of an adequate medical and educational program for children with impaired hearing rests on an early and systematic detection of hearing loss.[1,2] Early in the century, Goldstein (3), returned from Europe where he studied with the famous otologist, Urbantschitsch, and devoted himself to the study of the problems of deafness, especially among children. In the early twenties, Fowler and Fletcher (2), and others became interested in the preventive aspects of hearing impairment and were instrumental in the development of the phonograph audiometer. Goldstein and Fowler advocated early detection of hearing impairment, medical rehabilitation, and educational habilitation of school children in an effort to reduce the incidence of adult deafness and alleviate the educational obstacles confronting children with irreversible hearing loss. They recognized the magnitude of the problem and the need for a quick and accurate measurement of auditory performance with stimuli of some known acoustic value. From crude simple tests including coin-clicks, tuning forks, and voice, emerged pure tone audiometry, and more recently speech audiometry for the evaluation of hearing performance. Lindenberg and Fowler (9), have indicated that pure tone audiometry "is the only known method from which capacity to hear speech can be calculated." This generalization has face validity but can be questioned in many instances. Speech audiometry permits the calculation of hearing loss for speech directly and is definitely related to pure tone audiometry of 500, 1000, and 2000 cycles.

The 4A phono-audiometer group screening test for hearing was introduced in the New York State Public Schools in 1924 (4). New York State made mandatory the testing of public school children in 1938 (8). Many states have passed legislation requiring periodic testing and reporting of children with hearing impairments. Since hearing tests of large populations require time and often may become prohibitive financially, the search *for the most efficient* group screening test has continued to the present day. Nevertheless this quest for *the best* screening test has proved unrealistic.

West (17), Gardner (3), Johnston (6, 7), and others, have critically evaluated the phono-audiometer group test and have revealed this test may

[1] The writers express their indebtedness to Monsignor James E. Callahan, superintendent of the parochial schools of Syracuse, New York, for permission to use the entire population of St. Vincent's School. Thanks are also extended to Virginia G. Harris, M.D., director of bureau of child health, and Ada K. Perry, R. N., supervisor of school nursing, in the Syracuse Parochial Schools for their cooperation in the organization and prosecution of the testing.

[2] Grateful appreciation for his help, is expressed to Philip W. Johnson, M.D. of the Massachusetts Department of Public Health. He provided the Audivox 7 BP and tray of Western Electric #716-A receivers, which were used throughout the entire experiment.

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not screen out individuals with high frequency loss. This phenomenon has been true in the writers' experiences. The failure of the speech tests to screen out high frequency losses may be due to the individual's ability to capitalize on fragmentary speech cues. Speech is resistant to a good deal of distortion. Furthermore, most of the sound pressure levels for the vowels lie below 1000 cycles and individuals listening to numbers with an attitudinal set will make a high degree of correct guesses on the basis of the vowel sounds. In addition, the phono-audiometer test is quite susceptible to interfering ambient noise levels. The test consequently fails many individuals with normal hearing. Other sources of failure on this test are lack of coordination, language, and writing ability. Mentally retarded and motor handicapped children experience difficulty with this test.

Gardner (3), Harris (5), Johnston (6, 7), Munson (11), Myers (12), Neilsen (13), adapted individual pure tone audiometric methods to group testing. Myers, Harris, and Fowler (12), concluded: "It would appear that in terms of completeness and accuracy of results, a group method of pure tone audiometry is feasible in a reasonably alert population." Lindenberg and Fowler (9), Gardner (3), and Newhart (15), and others, have advocated pure tone individual sweep-check as an efficient method for screening populations. By inspection this method would appear to be the best and where time and economy are not factors, this is probably the most efficient test for screening. Nevertheless, individual pure tone screening has certain disadvantages: It is more time consuming than group tone. Yankauer, Guyer, and Chase (18) evaluated three screening methods including group phonograph, group pure tone, and individual pure tone tests. They tested 2,404 elementary school children from grades three to seven. The individual pure tone test required 1.9 minutes, as against .9 minutes for group pure tone, and 1.4 minutes for the group phonograph test. They concluded that the individual pure tone screening was superior to the other two methods. Both Gardner (3), and Munson (11), found group pure tone testing a satisfactory technique for testing young children. In the beginning the equipment cost was considered prohibitive. Johnston (6) devised the Massachusetts Pure Tone Screening Test for testing the Massachusetts school population. He later modified his test to make it more efficient with an accuracy approaching that obtained in individual screening tests[3]. Johnston (7) contended this method had certain advantages over his previous test. First grade children could be tested by this new technique. There was no need for paper or pencil. The tester employed the same principles as he would use in sweep-check, the method was faster, and less fatiguing. Where Gardner (3) used pulses, Johnston (6) first used pure tone stimuli of selected intensities. In the first test (6) the subject indicated whether he heard the stimuli by marking the yes or no option on his paper. In the later test (7) the children raised their hands. Johnston (7), later converted the instrument so that one intensity level was used for the screening frequencies.

DiCarlo and Gardner (1), employed a modified form of the Massachusetts Test (6) in screening 1754 incoming students at Syracuse University in September 1951. One hundred and twenty-seven individuals (88 males and 39 females) failed the group test and an approximate 12 percent (188 students—99 males and 89 females) random sample of the remaining 1627 subjects passing the group test, were given individual audiometric tests. They concluded "in terms of time, cost, and the results, the Massachusetts Pure Tone Group Test if modified, and when administered under the conditions . . . provides a very efficient testing tool for hearing testing of university populations." These results led the writers to extend this screening procedure to elementary school populations.

A period of trial with a number of school systems indicated that while the modified form of the Massachusetts Test was satisfactory with college populations, it did not appear to be an efficient instrument for testing school children in the first, second, and third grades. It was considered advisable to modify the test further by pulsing the tones instead of using the yes and no option. Pulsing the tone shortened the test and since no reading was involved, it was our belief the test could be successfully extended to the first grade.

Present Study

Permission was obtained from Monsignor James E. Callahan, superintendent of the Syracuse paro-

[3] Instructions for the Group Pure Tone Hearing Test, Massachusetts Department of Public Health, Division of Maternal and Child Health, Vision and Hearing Conservation Section.

chial schools, to test an entire school containing children in kindergarten through grades eight. St. Vincent's School, comprising 519 children, was selected for the study. The first consideration was the establishment of a satisfactory criteria for passing and failing the test. Johnston (6), calibrated his system by the loudness balance technique. His ultimate values were to provide a 15 decibel signal level for screening purposes. In his later test (7), he modified the equipment so that one setting permitted a 15 decibel signal level for all of the frequencies. Kaiser (8), suggested 15 decibels as a satisfactory passing criterion. Newby (14) and Peterson (16), advocated a 20 decibel criterion. In his first test, Johnston (6), used 512, 1,024, 4,096, and 11,584 cycles. In the later test, he used six frequencies: 250 to 6000 cycles[4].

Procedures

The three group and the individual pure tone tests were administered to all children from kindergarten through grades eight. In testing the school population we followed Johnston's instructions[5]. In our testing procedures we modified the signal frequencies to five instead of six and used 250, 500, 1000, 2000, and 6000 cycles. A second modification was applied to our pulse tone presentations. We used the modified Massachusetts Test as employed by DiCarlo and Gardner (1), 1951, a pulse tone, and Johnston's (7) test. These three group tests were all evaluated against pure tone audiometry. Individuals failing any one frequency in any group test were considered to have failed the test. The criteria for failing the individual pure tone test was established as 15 decibels for two frequencies, and 20 decibels for one frequency.

The following are the mean ambient noise levels of the testing rooms calculated on readings with the General Radio Sound Level Meter, Type 1551A, with setting at the A position:

Group testing room	42 db
Testing room 1	36 db
Testing room 2	38 db
Testing room 3	40 db
Testing room 4	40 db

These means are the results of 10 readings at different intervals of the day in each room, taken under conditions similar to those of the testing situation. A total of 519 students, or 1038 ears, were tested. The apparatus for the two group tests was set up in one part of the auditorium, while the Johnston's 7PB Audivox audiometer and a tray of Western Electric #716-A receivers which he loaned us for the experiment, was set up in another part of the auditorium. The equipment used for the modified Massachusetts and the pulse tone tests comprised the Maico Pure Tone Audiometer Model F-1, with 40 matched receivers and adapter. Method for calibrating the receivers was the same employed by DiCarlo and Gardner (1).

Individual tests were administered with two ADC Model 50-C2, and two Audivox 7BP audiometers. The noise levels outside the testing rooms were kept at a minimum by the directive of the school authorities and the cooperation of the entire school personnel. Virginia G. Harris, school physician, and Ada K. Perry, supervisor of school nursing in the Syracuse parochial schools, organized the school testing

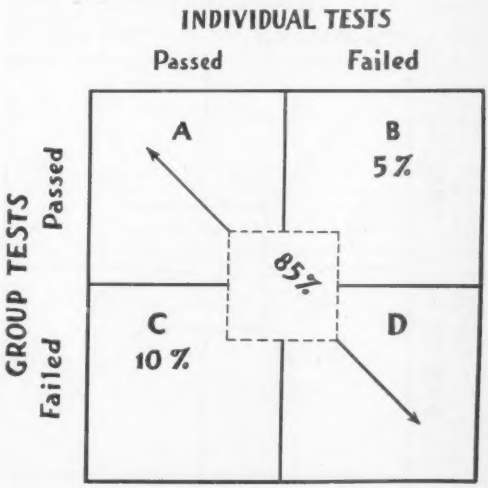

Figure 1. Accepted hypothetical criterion values representing agreement in classification of individual and group tests.

program and were instrumental in eliminating any activities that might interfere with the testing. The noise element in the testing situation was kept at a minimum by the monitors who directed the subjects to and away from the testing rooms. In the group tests, modified Massachusetts and the pulse tone, the tester listened through one of the receivers to

[4, 5] Personal communication.

ascertain the optimum testing conditions. Pretest instructions and demonstrations were given to the children.

Analysis

The analysis employed in this investigation is similar to that used by DiCarlo and Gardner (1). Figure 1, represents the accepted hypothetical criteria of values suggested by Newby (14). A criteria that misclassifies 10 percent of the hearing losses erroneously may be accepted providing that the errors are committed on the group tests. A margin of error in terms of failure to detect hearing at five percent might be considered. With respect to Cell C, the 10 percent criteria would be acceptable although the closer this limit approaches zero, the better would be the test instrument. The same rationale applies to Cell B. Certainly in Cell B the instrument should be as close to zero as possible. Consequently a new criterion suggested itself which is represented in Figure 2. Of the 1,038 ears tested

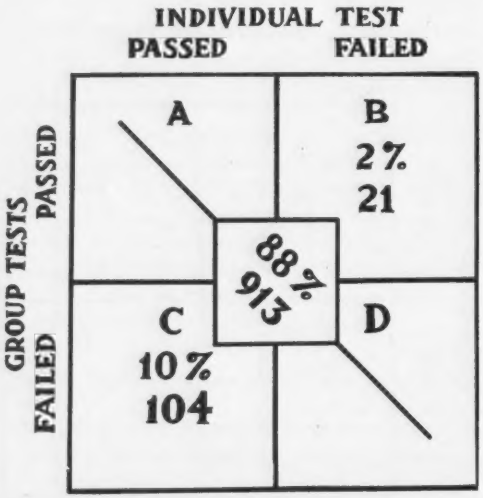

Figure 2. Suggested new hypothetical criterion values for representing agreement in classification of individual and group tests for 1038 ears.

it was felt that the five percent in Cell B should be reduced to two percent. Figure 2 shows the hypothetical distribution of the agreements and disagreements between the individual and the group tests. This investigation purported to compare the group audiometer tests to the individual thresholds at five frequencies.

Table 1 represents the distribution and classification of responses in categories of agreement and types of disagreement of the results for 1,038 ears. The modified Massachusetts test agrees in 795 individuals, eight individuals passed the group and

Table 1.—Values representing agreement and disagreement in clasisfication between modified Massachusetts, Pulse Tone, Johnston's, and individual tests for 1038 ears.

Test		Passed both group and individual tests	Failed both group and individual tests	Passed group but failed individual tests	Failed group but passed individual tests
	Cell	*A*	*D*	*B*	*C*
Modified	N	727	68	8	235
Mass. Test	%	70	7	1	22
Pulse tone	N	788	68	8	174
Test	%	76	7	1	16
Johnston's	N	906	68	11	53
Test	%	87	7	1	5

failed the individual test while 235 children passed the individual but failed the group test. For the pulse tone test, 856 individuals agree, eight passed the group test but failed the individual test while 174 children passed the individual but failed the group test. For Johnston (7) test, there is agreement on 974 children. 11 passed the group but failed the individual test while 53 passed the individual but failed the group test. Table 1 presents the actual distribution of the performances in the different cells. Examination of the distribution reveals that in all three group tests, Cell B values are lower in the actual test results than the hypothesized criteria. The values for Cell C, however, are much higher for the modified Massachusetts and the pulse tone tests, than the postulated criteria. Cell C values for the modified Massachusetts test were 22 percent and for the pulse tone test 16 percent. In both these tests the values are greater than the hypothesized criteria and reveal that too many ears would be needlessly retested. Of the 1,038 ears tested with Johnston's (7) test, 53 ears or five percent, failed the group test but passed the individual test. This value is much lower than the hypothesized value. For all three tests the Cell B values are much lower than the two percent hypothesized for the test. The modified Massachusetts test and the pulse tone test failed to detect hearing loss in eight individuals, which comprised less than one percent of the total population. The Johnston (7) test failed to detect 11, or one percent, which is still lower than the hypothesized values. Any test instrument devoid of

error would approximate zero. Nevertheless one percent is as low a margin of error as might be expected under the most satisfactory testing conditions.

The modified Massachusetts test agreed 77 percent in passing and failing individuals on group and individual tests. The pulse tone test agreed 83 percent in passing and failing individuals on the group and individual tests. Both these values are less than 88 percent, and are therefore inferior to the hypothesized criteria. Johnston's (7) test, agreed 94 percent in passing and failing on the group and individual tests. This value was superior to the hypothetical criteria. Analysis of the total test results reveals the Johnston (7) test resulted in extended agreement with the hypothetical criteria, while the disagreement categories were much lower than the hypothetical limits.

Chi-squares were computed for the data in Table 2. Table 2 presents the chi-square, degrees of freedom, and probability values for the three tests. The chi-square value for the modified Massachusetts test was 188.31, which with 2 degrees of freedom resulted in a probability value of less than .001 percent. The chi-square value for the pulse tone test was 58.7, with a probability value of less than .001 percent. The chi-square for Johnston's (7) test, of 33.8, also gives a probability value of less than .001 percent. The chi-square values for the modified Massachusetts and pulse tone tests, indicates agreement between the group and the individual tests only in Cell B as being better than would be considered acceptable on the basis of the critical limiting values defined by the postulated criteria.

Table 2.—Chi-square, degrees of freedom, and probability values for each test. (N = 1038)

Test	Cell	Observed frequency	Theoretical frequency	Chi-square	Degrees of freedom	p
Modified	AD	795	913	188.31	2	.001
Mass.	B	8	21			
	C	235	104			
Pulse tone	AD	856	913	58.72	2	.001
	B	8	21			
	C	174	104			
Johnston's	AD	974	913	33.82	2	.001
	B	11	21			
	C	53	104			

While Table 2 reveals a relationship between these two group tests and the individual test as greater than could be possible by chance factor, inspection of the obtained percentages reveal that for Cells A, C, and D, the results are much poorer than the hypothesized criteria. It was considered desirable to analyze statistically the relationship between the obtained results and the hypothesized criteria.

Table 3 presents the critical ratios for the differences between percentages of observed agreement and the a priori theoretical percentages of agreement for 1,038 ears. The critical ratio values of 11.30 for the modified Massachusetts test and 5.48 for the pulse tone test, and 5.77 for the Johnston (7) test, the probability values are less than .001 percent. Nevertheless while these critical ratios indicate significant differences between the tests, the modified Massachusetts and the pulse tone tests are significantly inferior to the hypothesized criteria, while the Johnston (7) test, is significantly better than the hypothesized criteria.

Table 3.—Critical ratios for differences between percentages of observed agreement and a priori theoretical percentages of agreement. (N = 1038)

Test	Cell	Observed percentage	Theoretical percentage	Critical ratio	p
Modified Mass.	AD	76.59	88.00	11.30	.001
Pulse tone	AD	82.47	88.00	5.48	.001
Johnston's	AD	93.83	88.00	5.77	.001

Table 4.—Classification of responses of 624 ears tested by the modified Massachusetts with Grades Kindergarten through Third deleted, Pulse tone with Kindergarten and First Grade deleted for 826 ears, and individual tests.

Test	Tests agree	Passed group but failed individual tests	Passed individual but failed group tests
Modified Mass. with Grades Kindergarten thru Third deleted	570	5	49
Pulse tone with Kindergarten and First Grade deleted	775	7	44

Since both the modified Massachusetts and the pulse tone tests did not appear to be satisfactory instruments, it was decided to analyze the data fur-

ther by eliminating certain children. All children from kindergarten through the third grade were deleted for the modified Massachusetts test, and all children in kindergarten and first grade were deleted for the pulse tone test. Table 4 presents the classification of responses of 624 ears tested by the modified Massachusetts test with kindergarten through third grade deleted, and the pulse tone for 826 ears, with kindergarten and first grade deleted,

Table 5.—Values representing agreement and disagreement between the modified Massachusetts, with Grades Kindergarten through Third deleted (N = 624), Pulse tone with Kindergarten and First Grade deleted (N = 826), and individual Pure tone tests.

Test		Passed both group and individual tests	Failed both group and individual tests	Passed group but failed individual tests	Failed group but passed individual tests
	Cell	*A*	*D*	*B*	*C*
Modified Mass. with Grades Kindergarten thru Third deleted	N	527	43	5	49
	%	84.4	6.9	.8	7.9
	Cell		*D*	*B*	*C*
Pulse tone with Kindergarten and First	N	723	52	7	44
	%	87.5	6.3	.9	5.3

and individual tests. Table 5 indicates values representing agreement and disagreement between the modified Massachusetts test with kindergarten

Table 6.—Chi-square degrees of freedom, and probability values for modified Massachusetts, with Grades Kindergarten through Third deleted (N = 624), and Pulse tone with Kindergarten and First Grade deleted (N = 826)

Test	Cell	Observed frequency	Theoretical frequency	Chi-square	Degrees of freedom	p
Modified Mass. with Grades Kindergarten thru Third deleted	AD	570	549	8.45	2	.05
	B	5	13			.015
	C	49	62			
Pulse tone with Kindergarten and First Grade deleted	AD	775	727	26.56	2	< .001
	B	7	16			
	C	44	83			

through third grade deleted, for 624 ears, and the pulse tone test with kindergarten and first grade deleted, for 826 ears and individual pure tone tests.

With the kindergarten through third grade children deleted, Cells A and D in the modified Massachusetts test account for 91.3 percent of all the population, while Cell B represents 5 children or .8 percent of children failing detection, and Cell C shows 49 or 7.9 percent of the children failing the group but passing the individual test. The pulse tone test indicates 93.8 percent of the population accounted for in Cells A and D with .9 percent of the children in Cell B, and 44 or 5.3 percent of the children in Cell C. All of these values are better than the hypothesized criteria.

Table 6 exhibits the chi-square, degrees of freedom, and probability values, for the modified Massachusetts and the pulse tone tests. Table 7 reveals

Table 7.—Critical ratios for differences between percentages of the modified Massachusetts, with Grades Kindergarten through Third deleted (N = 624), and Pulse tone with Kindergarten and First Grade deleted (N = 826).

Test	Cell	Observed percentage	Theoretical percentage	Critical ratio	p
Modified Mass. with Grades thru Third deleted	AD	91.35	88	2.58	.01
Pulse tone with Kindergarten and First Grade deleted	AD	93.82	88	5.15	< .001

the critical ratios for the differences between percentages of the modified Massachusetts test with kindergarten through third grades deleted, and the pulse tone with kindergarten and first grade deleted. A critical ratio value of 2.58 indicates a significant difference at the 1 percent level for the modified Massachusetts test, while for the pulse tone test a critical ratio of 5.1 reveals a significancy at the .001 percent level of confidence.

Table 8 shows the obtained proportions for Category B and C for each test with criterion value for Cell B of two percent, and Cell C of 10 percent. Analysis of the results would indicate that the modified Massachusetts and the pulse tone tests, fail an exceedingly greater number of children than the hypothesized criteria. Johnston's (7) test, gives values much better than those of the hypothetical limits for the entire school population, while the

modified Massachusetts test with kindergarten through third grade deleted, and the pulse tone test with kindergarten and first grade deleted, appear to be satisfactory at these levels.

Table 8.—Obtained proportions in categories B and C for each test, with criterion value for cell B = 2%, and cell C = 10%.

Test	Cell B	Cell C
Modified Mass.	.77%	22.64%
Pulse tone	.77%	16.76%
Johnston's Modified Mass. with Grades Kindergarten thru Third deleted	1.06%	5.11%
Pulse tone with Kindergarten and First Grade deleted	0.8%	7.85%
	.82	5.33%

Table 9 indicates the limits for obtained proportions in Cell C at five percent and one percent levels. On the basis of the results obtained, the limits for the obtained proportions in Cell C at the five percent and one percent levels reveal that the modified Massachusetts and the pulse tone tests are inferior to the hypothesized criteria, while the modified Massachusetts test with kindergarten through third grade deleted, is satisfactory at the lower end of the five percent and one percent levels but unsatisfactory at the upper levels of the five percent and one percent levels. The Johnston (7) test and the pulse tone test with the kindergarten and first grade deleted, satisfy the conditions of the hypothesized criteria.

Table 9.—Limits for obtained proportions in cell C at 5% and 1% levels.

Test	5%		1%	
	Lower	Upper	Lower	Upper
Modified Mass.	20.09	25.19	19.31	25.97
Pulse tone	14.21	19.13	13.43	20.09
Johnston's Modified Mass. with Grades Kindergarten thru Third deleted	3.35	6.87	2.81	7.41
Pulse tone with Kindergarten and First Grade Deleted	5.50	10.20	4.78	10.92
	3.29	7.37	2.65	8.01

Discussion

A comparison of the actual results of the three group tests with the hypothesized criteria revealed that in all three tests the actual results as indicated by the critical ratios was significantly different than could be expected by chance. The results of the modified Massachusetts test and the pulse tone test, were much poorer than the Johnston (7) test when administered to the entire school population. The Johnston (7) test results were much better than the a priori established criteria. In all three tests the Cell B values were satisfactory and much better than the criteria, but the modified Massachusetts and the pulse tone tests, were inferior instruments to the Johnston (7) test and to the established hypothetical values. The Johnston (7) test succeeded quite accurately in separating subjects with significant hearing losses from those with essentially normal hearing. In addition, the test failed only five percent of the population which was 50 percent lower than the hypothesized value. The Johnston (7) test nevertheless, did have a higher distribution in Cell B than either the modified Massachusetts or the pulse tone test, even though the number was minimized. While the value in Cell B would be more satisfactory if it were zero, it is very questionable whether this value would ever be obtained without imposing more stringent restrictions upon the criteria. Such further restriction might reduce the distribution in Cell B but would also increase disproportionately the distribution in Cell C. Examination of the score sheets revealed that the distribution in Cell C for the modified Massachusetts test was due to the failure of children in the kindergarten, first, second, and third grades with the preponderance of failures in kindergarten, first and second grades. This would appear reasonable when one considers that children in kindergarten, first, and second grades have had little experience with reading and writing. The task also proved too difficult for a good number of the third grade students. The investigation also indicated that the pulse tone was more suitable for children in the second and third grades, than the modified Massachusetts test. The experience with the test also indicated that first grade children could do fairly well with the test if instead of using numbers they were permitted to make a mark every time they heard a tone. When the examiner moved from one frequency to another, he would say "circle." The children would circle the numbers of marks and move to the next space. Figure 3 represents a

score sheet used for children in the first, second and third grades.

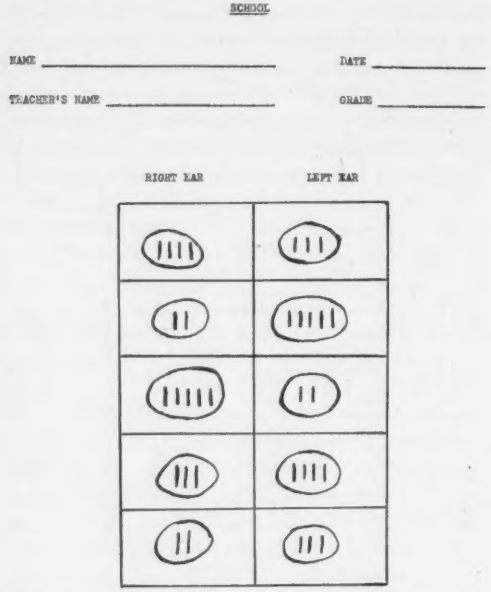

Figure 3. Score sheet employed in recording responses by first, second, and third grade students.

The elimination of kindergarten through third grades for the modified Massachusetts test reduced the number of ears to 624. When the chi-square and the critical ratios were computed, this test was also significantly better than the hypothesized criteria at the one percent level. When the kindergarten and first grade were eliminated from the pulse tone test, this reduced the number of ears to 826, but the test results revealed that the pulse tone test was significantly better at less than the .001 percent level. Tables 8 and 9 revealed that for Johnston's (7) test, and the modified Massachusetts with kindergarten through third grades eliminated, and pulse tone test with kindergarten and first grades eliminated, the results were significantly better than the a priori criteria. This would indicate that the modified Massachusetts test is a satisfactory test for testing children from the fourth grade upward, while the pulse tone test would accomplish the same task with children from the second grade upward. In this respect, Johnston's (7) test effectively screened all the children from kindergarten up.

Analysis of the per pupil testing time indicated that Johnston's (7) test, which tested 10 children at once, required a greater amount of time. The testing time per child with Johnston's (7) test, was 55 seconds, while the testing time for the modified Massachusetts test, testing children from the fourth grade up, was 21 seconds, and the testing time for the pulse tone test testing children from the second grade was 12.5 seconds. In terms of time, Johnston's (7) test requires almost more than twice as much time as the modified Massachusetts test, and almost five times greater time than the pulse tone. The per pupil testing time for pure tone screening was 2.1 minutes. An evaluation of the results indicated that in terms of time, the pure tone takes longer to administer while the pulse tone required the least time of all the tests.

In many schools today, group pure tone testing can be successfully administered since most of these schools have rooms for music instruction which are usually pretty quiet. The school authorities would be willing to sacrifice activities for a day or two, but not for any longer period. While pure tone screening would appear to be the best test, satisfactory conditions for administering the test are difficult to maintain for a long time. On the other hand, an efficient group test could easily be included as part of the regular activities of a school in which all school personnel participate. Evaluation of the results clearly establishes that the Johnston's (7) test more closely approximates the efficiency of pure tone individual screening but in terms of economy and time, it is less efficient than either the modified Massachusetts with grades kindergarten through third eliminated and the pulse tone with kindergarten and grade one eliminated. A new method of scoring which permits children to write in marks makes the test applicable to first graders. The results establish also the possibility of a combination of techniques to provide the best screening results. The writers believe that the following combination provides the best approximation:

1. Johnston's (7) group pure tone screening for kindergarten and first grade children.

2. The pulse tone group pure tone screening for children from the second grade up.

Another satisfactory combination would be to employ:

1. Pure tone screening for the kindergarten.

2. Johnston's (7) group test for the first grade.

3. Group pulse tone testing for the children from second grade up.

Another effective combination but not as efficient as either the first two alternatives would be:

1. Pure tone screening for kindergarten.

2. Pure tone pulse tone for grades one, two and three.

3. The modified Massachusetts for grades four, up.

These combinations do not require change in equipment.

Furthermore Lutz (10) has demonstrated September and October, March and April to be the most propitious months while January and February the worst for testing.

The evaluation of the results also indicates that either one of these three combinations can be applied to a successful testing program in elementary schools. The efficiency will depend upon: (1) a carefully planned administration of the program which reflects the cooperation of the school authorities with the entire school personnel participating; (2) adequate structuring of the test situation and (3) most important of all as indicated, a relatively quiet room.

Conclusion

Analysis of the findings indicate that pure tone group screening testing is feasible, reliable, and efficient for screening elementary school populations when carried out under the conditions outlined in the study. In terms of time, cost and results, the combination of Johnston's (7) pure tone group test for kindergarten and first grade and the group pulse tone for grades two and up appears to offer the best combination.

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A REVIEW OF

Barbara: A Prologue

by Willard Abraham

Rinehart and Company, Inc. New York, 1958. 94 Pages. $2.

EDGAR A. DOLL

How does one write a professional review of a revealing personal tragedy? How call attention to a report of poignant family intimacy and publicly appraise the stricken grief of a friend and colleague? Yet this very human diary, in which a stunned father talks to his infant mongoloid daughter, who survived but four troubled months, gives a revelation of family feeling with vivid insight for all who love and work with exceptional children. Love *or* work with? There can be no either—or, at least not if Barbara's brief sojourn should constitute that "prologue to a brighter future" for parenthood, education, and community tolerance which this book portends.

It is easy for the untouched to teach that mongoloid children, like all children, are people and not "cases." But to experience this in one's own family, and more especially by a parent warmly devoted to promoting wider community acceptance, broader community services, and more insightful parent understanding is a shocking irony. That no one is immune to such experience, however remotely or intimately, is one theme of this soul-baring cameo. Another is the honest difficulty of resolving the consequences with moral uplift instead of blight. One suspects from between the lines that, these solutions are inevitably of the order of compromise and tinged with more misgiving than conviction, as any deep grief may ultimately become accommodated to, rather than set aside.

There is professional substance and counsel, the weighing of courses of action, the awareness of the still pitiful limitations of knowledge, the unavoidable ambivalences and authoritative contradictions, the incorporation of family members, maintaining face with various neighbors and relatives. the question of additional children, home versus residential care, estimation of potential,—all in the setting of "This is our child but there are and will be others and no family can claim assured immunity."

Willard, I'm sorry and deeply touched. And for Dale even more so, since no man can know a mother's deepest feelings. But in sharing your experience so fully with the rest of us Barbara may indeed be a prologue to a better day for all children. And if we, whether as professional workers, parents or just plain citizens can assimilate some part of your character in this trial then perhaps, some part of God's will has been done.

●**EDGAR A. DOLL** is the consulting psychologist for the Bellingham Public Schools, Bellingham, Washington.

Guideposts for Helping Parent Associations Develop Programs of Education for Children with Cerebral Palsy

JOSEPH FENTON

DURING the initial growth of cerebral palsy parent groups, because the obvious problem appeared to be the child's physical disablement, the concept came about that the child with cerebral palsy was exclusively a medical problem. Parents believed that the availability of therapies would be a cure-all. With this in mind parent groups have worked ardently these past 15 years to stimulate medical interest, foster and turn into reality their dreams for a place where their children with cerebral palsy could be treated. Rapid strides have been made in this to the extent that in terms of medical understanding, availability of therapy facilities and programs, the child with cerebral palsy can no longer be considered neglected.

Treating limbs alone falls short of a solution to the child's problem. When the point of maximum benefit from therapies is reached there still remains major physical limitations as well as diverse personal problems. The cerebral palsy program must be re-evaluated. The energies of parents must be redirected if total habilitation of the child is to take place.

The New Look

This new approach is basically one which everyone probably senses and should understand. A cerebral palsied child is a child with problems. These problems have been superimposed upon him, for the most part, as a result of his condition. Society and the family have both helped in the past to create some of the problems, now to help solve them.

It is proposed here that this educational process ideally takes place in a public school setting; that facilities include space and provisions for education, speech therapy, occupational and physical therapy; that social work and psychological services be provided; and that all persons working with the child function as a team.

In a school environment there are opportunities for real life experiences for the child with cerebral palsy. The schoolroom may be considered an integrating center with opportunities to put into practical use the skills that are being taught by the speech therapist, physical therapist, and occupational therapist. Whereas specific speech sounds, motor skills, or manipulative skills are learned in isolated environments, the classroom affords the child opportunity to use these skills in realistic social situations.

This "new look" does not doubt the value of the medical and therapeutic aspect of the problem, for the importance of it is basic to any program for children with cerebral palsy. Nor is the purpose to claim that education is the most important aspect. It is merely an endeavor to call attention to broader needs, discuss the importance of a total educational

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process, and place it in its proper perspective. This is being done with the hope that parents will see the need to work as energetically toward the development of an ideal educational program *in conjunction with the therapy program,* as they have in the past in the development of the therapy program alone.

All good educational programs are based upon the needs of the individuals they serve. The needs of children with cerebral palsy point to a program consisting of three specific interrelated phases:

1. Education of the child with cerebral palsy
2. Parent education
3. Education of adults and peers in the community.

Education of the Child with Cerebral Palsy

The goal of the educational process for children with cerebral palsy is the same as for "normal" children to assist each child to develop his physical, mental, emotional, social, and vocational potential to the fullest. The end result would be to become a well integrated self-sustaining, functioning member of society, to the limits of the individual ability.

What are the educational objectives then, in terms of the child with cerebral palsy? To what philosophy should we adhere?

Education is not a fixed quantity of knowledge with set standards that everyone must adhere to and absorb at the same rate. This principle applies to a greater degree in educating the cerebral palsied child. As each child has his individual differences, capabilities, and capacities, so does the cerebral palsied child—only more so. No two cerebral palsied children manifest a like initial physical disability nor are their associated disabilities the same. How one child reacts to physical exercise or an arithmetical concept should not be compared with another child's reactions. Each is an individual and must be diagnosed, understood, and taught on an individual basis. We do not strive for "normality" in these children, but to provide them the opportunity to develop their abilities to the fullest in view of the prevailing disabilities. Progress should be measured in terms of the individual child —not by comparison to others. In brief, we should be more concerned with what he is, than with what he is not; and with what he has, than with what he has not.

It is essential that the cerebral palsied individual be helped to develop a realistic understanding and acceptance of himself. He must accept that a higher education is not a guarantee of higher employment opportunities; that a college education, if pursued, will most likely benefit him culturally but not necessarily vocationally; that society has not as yet fully accepted the palsied person and therefore his vocational goals are limited. He must be helped to understand and carry on social relationships, to be physically capable of locomotion, self-help and care, to be capable of communicating with others and to grow to be capable of realizing a vocational goal if at all possible.

Educational Planning

The achievement of these objectives requires the combined and co-operative efforts of specialists from many areas. Not until competent medical diagnoses, educational, social and psychological evaluations and recommendations are made, determining what the major needs are, should the process of education start. The therapists, social workers, teachers, psychologists, and parents then develop the specific components of the program in consultation with each other. Each has his specific role, but to gain maximum benefit in any of the areas the work of each must be integrated into a total plan and furthered by the others.

Great efforts may be expended in raising funds and fabulous amounts of money may be spent in the construction of new "clinics" or treatment buildings. It would be to the advantage of a local association and to the child if these energies could be diverted into locating the education program in a school building, which other children of the community attend, and providing facilities which include special classes and space for all of the necessary therapies. Much of the monies saved could then be used by the association to purchase supplementary services of expert medical consultants, therapists, social workers, psychologists, vocational counselors as well as special equipment which may not be provided through public school funds. Some of the other advantages are:

1. From the child's point of view this planning is psychologically sound. Going to *school* each day is the accepted activity of childhood. If the program is located in a regular community school,

the handicapped child is able to attend. He would be doing the same thing as others of his age—going to school—rather than to a clinic or treatment center. Attending a school gives the handicapped child greater opportunities to grow up in a "normal" social environment, as near to the "normal" way as is possible.

2. A program for children with cerebral palsy in a regular school affords the opportunity for integrated activities and shared experiences with other children during parts of the school day. The special class children can attend school auditorium programs and be part of other school events. This will give them the same school spirit and feeling of membership within a larger group that often includes their own siblings.

3. A program in a school affords individual children trial periods in regular classes when they are ready for these experiences. They can at first be tried for an hour a day and the time increased later as the child's readiness indicates. If our goal for many is ultimate functioning in society, then these learning opportunities must be available at an early age.

4. When handicapped children are in a regular school with integrated activities there is a great opportunity for changing of pre-conceived notions about handicapped people. Both "normal" children and teachers learn to accept and understand the handicapped child as they get to know him through association.

The Teacher

The large amount of time the child spends in the classroom makes it important to select teachers who, by virtue of temperament and professional preparation, are suited to the job. If maximum opportunities for child growth are to take place, the teacher must be capable of creating an environment that transmits to the child the feeling that school is a place where he belongs, where he is accepted and is secure.

A person choosing to teach cerebral palsied children must primarily be fond of children and be ready to accept and understand them as children differing in that they have physical, mental, and emotional variations from normal children. The teacher should look at this work as a challenging task and an opportunity in which he can contribute to the growth of a child less fortunately endowed than others. The teacher must be sympathetic but not feel pity, for no one wants to be pitied. The teacher should not feel that his work is morose but rather have a special "feel" for it and receive much personal satisfaction and joy from it. Although the emotional status of the teacher is important it is most difficult to determine. Care must be taken less the teacher becomes too emotionally involved with the problems of individual children. He should be capable of looking at the child objectively and rendering assistance accordingly. He should be capable of helping children solve their own problems without being over solicitous.

The School Curriculum

A good curriculum considers the current stage of development of each child as well as his potential developmental abilities. Therefore, in planning the curriculum for the cerebral palsied child just beginning school, consideration should be given to the possibility that his experiences may have been limited because of his physical disability. The normal child crawled about his house, walked about his neighborhood independently, accompanied his parents to the store and to town, was able to pick up and manipulate objects, played with other children and generally explored the environment. These are activities that help young children to learn and grow toward a level of maturity consistent with their age. Cerebral palsied children, by and large, are found to be less mature and educationally retarded when they start school partially because of their lack of normal experiences. The emphasis in the curriculum for these young children first starting school should be on activities that will provide the child with some of these early experiences that they missed.

A desirable environment for learning is one that is stimulating and self-motivating rather than superimposed, and where the responsibility for planning is shared by the pupils and the teacher. Learning takes place through stories, trips to the neighborhood stores, post offices, and firehouses; through opportunities to talk, discuss and make decisions; through music, singing, rhythms, block building, story telling, picture books, dramatic play, painting, group games, nature study, and crafts. All of these activities, if utilized as meaningful experiences, aid in the development of readiness for the academic skills of reading, writing, and arithmetic.

Furthermore, they assist the child to develop satisfactory social and emotional attitudes that lead to an ability to partake in happy interpersonal relationships. Whenever practical, appropriate group activities should also be planned, for they teach children how to cooperate, to share, to accept responsibility, and to make decisions.

Of special importance is a knowledge, understanding, and employment of the appropriate teaching adjustments for the children who have perceptual, thinking, and behavioral disorders connected with brain damage as well as for those with mental, speech, visual, or hearing limitations.

When vocational goals should be emphasized is a debatable question. Some programs start at an early age while others neglect this phase of education altogether. The need is borne out by the common knowledge that many cerebral palsied persons experience difficulties in obtaining employment. A great deal of consideration should therefore be placed in planning ways and means that the curriculum can fulfil the aim of our educational program of assisting each individual to take his place in society, to the best of his ability, as a productive member of society.

The school program can help in this regard by including from the very beginning experiences that will develop good work habits, pleasing personalities, and wholesome emotional attitudes conducive to employment. It would not be a wise procedure to ask a child to make a vocational selection at an early age because he has a handicap. However, occupational information, literature, guidance projects, and vocational discussions should have a definite place in the curriculum. The exploration of vocational objectives should be a developmental process for all children throughout their school lives. In general all school experiences that stimulate development of maximum potentialities are the ones that make the most helpful contribution to vocational goals. Various community resources such as the Division of Vocational Rehabilitation should be called upon for consultation frequently to assist with individual vocational analysis and planning.

Educating Parents

The impact of a handicapped child upon parents and the family is something that must be fully recognized and taken into account if we are to help the child toward maturity and independence. A parent's basic reaction to his own handicapped child is initially influenced by society's attitude toward the handicapped. The parents' involvement, however, is more personal so naturally the reaction is more intense. Some parents of handicapped children exercise feelings of hurt pride, unwillingness to face the facts, or to accept the realities of the condition. Still others may feel ashamed of their child, disappointed, burdened by the constant care required, or be repulsed by the child's unattractiveness. These feelings may result in parent rejection or overprotectiveness of the child with cerebral palsy to the extent that it severely retards his healthy development. It becomes obvious then that a program of education of parents of children with cerebral palsy is a necessary part of the total educational process. This aspect of the program should offer parents an opportunity to explore, express, share, and gain insight into their feelings. It should include the following objectives:

1. Helping parents to learn facts about cerebral palsy with special emphasis on how their own child is affected
2. Helping parents accept and love their child as he is, without making demands upon him that are beyond his abilities
3. Helping parents to expel any feeling of personal guilt
4. Helping the parents to see the need for treating their handicapped child the same way they do any other child in the family—giving him no undue privileges or time
5. Helping parents to see the need for allowing the handicapped child to do things for himself, thereby helping him to develop as much independence as possible
6. Helping parents to understand the true limitations and potentialities of their child so they can accept realistic goals for him
7. Helping parents with ways of encouraging interests and initiative within the child in keeping with his abilities.

In an ideal program the importance of good parent-child relationships for *all* children cannot be over-emphasized. A home that offers security, warmth, protection, understanding, a feeling of belonging to the family unit, and a knowledge of being wanted nurtures healthy, emotional growth. A child needs to feel that he will be loved no matter

Bulletin

Kansas City Hospitality Awaits Council Members

Program Chairman Lloyd M. Dunn, of Nashville, Tennessee, and his committee have completed their plans and program for the 36th annual spring meeting of the Council.

With the theme "Increased Service Through Greater Knowledge of Exceptional Children," the convention will cover many phases of educational concern for expanding services to all exceptional children.

Special meal functions are set, the reception and social hour await, as do the buses for the numerous tours and visitations. Delegates from Canada and the United States are checking their final reservations and the Hotel Muehlebach and the Municipal Auditorium doors have the welcome sign out.

Some special features that convention goers should watch for are described here.

CONGRESSMAN ELLIOT TO SPEAK

The Honorable Carl Elliot, Democrat, of Alabama, will be the featured speaker at the President's Dinner. He is chairman of the special education subcommittee, House Committee on Education and Labor.

Congressman Elliot represents the Seventh District in Alabama, and is a graduate of the Franklin County public schools there. He received his A.B. and LL.B. degrees from the University of Alabama.

Well-versed in the problems and needs of education for exceptional children, Congressman Elliot recently addressed the NEA-sponsored Conference on the Academically Talented.

MEDICAL AUTHORITIES PARTICIPATING

Three of the nation's top flight medical authorities specializing in treating handicapped children and adults will participate in a section meeting "Medical Advances in Crippling and Special Health Conditions," at 10:30 AM on Wednesday, April 9th.

Jayne Shover, associate director of the National Society for Crippled Children and Adults, will be chairman of the section meeting. Participants for this special session include George W. N. Eggers, M.D., professor of orthopaedic surgery at the University of Texas Medical Branch, Galveston, speaking on "Advances in Orthopaedic Research and Treatment;" Chester Swinyard, M.D., medical director of the rehabilitation center at the University of Utah, Salt Lake City, discussing "Progress in the Field of Neurology with Emphasis on Cerebral Palsy and Muscular Dystrophy," and Richard J. Waters, M.D., assistant clinical professor of pediatrics, Yale University School of Medicine, New Haven, Conn., presenting "Medical Advances in the Cardiac Field."

This section meeting which is sponsored by the national Society, is aimed at providing special information helpful to the administrators principals, cordinators, and teachers attending the ICEC convention, so that they will become better equipped with more information on the special education needs and types of programs that can be developed for handicapped children.

Lloyd M. Dunn

Hon. Carl Elliot

G. W. N. Eggers

Chester Swinyard

Richard J. Waters

FILM THEATRE ATTRACTIONS

Ramona D. Kadler will be in charge of arrangements for the Film Theatre sessions of ICEC's 36th annual convention.

Arrangements have been made for the Music Room of the Hotel Muehlebach to be the setting of the showings, Time will be Wednesday evening at 7:30 PM. A second session may be scheduled for Friday afternoon, April 11th, from 4-6 PM. Complete annotations on the films to be presented as well as scheduling information will be given all ICEC convention registrants in the packet presented upon registration.

As the BULLETIN goes to press, films representing the following areas have been announced for presentation on Wednesday evening: Hearing Disabilities; Speech Deficiencies; Visual Handicaps; Neurological Handicaps; Orthopedic Disabilities; Emotional Maladjustment; Mental Health; and Mental Retardation.

Other Organizations

N.Y.U. CHAIR OF MEDICINE HONORS HOWARD A. RUSK

Created by a $500,000 gift from the late Louis J. Horowitz, the chair is the first such endowed in the field of physical medicine and rehabilitation.

In addition to the $500,000 endowment, Mr. Horowitz directed that the income from $1 million be used for training and teaching in physical medicine and rehabilitation. Another $10 million will also be used to assist rehabilitation of the physically disabled.

A NEW PUBLICATION

It is called *The Pointer* and is issued six times during the school year in the form of approximately 12 mimeographed pages. The sponsor of this new undertaking is the East Bay Association of Teachers of Retarded Children.

If interested, a sample copy may be obtained by writing the editors at 1714 Francisco St., Berkeley 3, California.

1958 CONGRESS OF WORKERS FOR MALADJUSTED CHILDREN

The Palais de Beaulieu in Lausanne, Switzerland, will be the scene of the 1958 Fourth Congress of the International Association of Workers for Maladjusted Children from June 20-24th. Participants numbering over 600 from 55 countries are expected.

Official languages of the sessions are English, French, and German, with simultaneous translation during the plenary session.

Supplementary information may be obtained from the Congress Secretariat, I.A.W.M.C., 26 Trabandan, Lausanne, Switzerland.

REGIONALS ON THE PHYSICALLY HANDICAPPED

The President's Committee on Employment of the Physically Handicapped is again cooperating with several Governor's committees in arranging a series of regional meetings. Purpose of the meetings will be to provide opportunity for exchanges of experiences in promoting public understanding and employer acceptance of the physically handicapped.

Melvin J. Maas, chairman of the President's Committee, has announced the meetings as follows:

I. March 7, 1958, Salt Lake City, Utah, with representation especially invited from the Mountain States.
II. March 10, 1958, Oakland, California, with representation for the Coast States.
III. April 10, 1958, Omaha, Nebraska, with representation for the Great Plains States.
IV. May 27, 1958, Hartford, Connecticut, with representation for the New England States.

WINGS FOR THE DISABLED

Operated by Ambassador Tours and sponsored by the International Society for the Welfare of Cripples, this tour for the disabled will feature a 21-day trip through England, France, Holland, Belgium, and Denmark. Cost is $875. Dates for this journey are May 17-June 6.

All passengers must be of such physical condition, as to render themselves capable of self-care without assistance.

Application and information blanks are available from Ambassador Tours, Inc., 27 William Street, New York 5, N.Y.

NEA Activities

APRIL IS TEACHING CAREER MONTH

This is NEA's new plan to dramatize the importance of the teacher in our national life. It will be inaugurated by NEA with the cooperation of more than 50 professional and lay organizations.

T. S. Stinnett, National Commission on Teacher Education and Professional Standards, announced this plan as a permanent event to be on the calendar each April. Through the efforts of NEA and other national groups, this time is to be devoted to a campaign for teacher recognition, encouragement of planning for teaching careers, as well as commendations for communities where teacher salaries, morale, standards, and prestige are high.

ICEC Briefs

EXECUTIVE COMMITTEE APPOINTS TWO NEW STAFF MEMBERS

John H. McCormick

June B. Jordon

The appointment of John H. McCormick, Jr., as director of consultative services and editor of EXCEPTIONAL CHILDREN, and of June B. Jordan as director of membership and sales is announced by President Maurice H. Fouracre.

Mr. McCormick is a long-time Council member. For most of the past five years, he has been a field consultant in the division of special education of the State Department of Public Instruction, Topeka, Kansas. At the present time, he is acting director of that division, following the resignation of the director, John Jacobs, on January 1.

During the period from January to May, 1956, Mr. McCormick was on leave from his position to serve as a special consultant to the section on exceptional children and youth of the United States Office of Education. He now comes to ICEC to provide for an extension of ICEC's consultative services and to succeed Ivan K. Garrison as editor of this Journal. The consultative aspects of his position are being made possible by NEA as a part of its expanded program of services to the profession.

June B. Jordan is a former teacher of Junior high school mentally retarded children of Baltimore County, Maryland.

Last February, she completed the course requirements at the University of Illinois for her doctorate in special education. While there she worked part-time as a research assistant under Samuel A. Kirk.

Mrs. Jordan took over her position with ICEC on March 19. She is responsible for directing all ICEC membership and sales activities, working in various ways with chapters and federations on their program and membership problems as well as with state chairmen. In addition to these new services, the work of the membership office is being redistributed among more persons devoting part time to it, thereby enabling us in the future to fill, with greater dispatch, the large volume of late orders received annually during December, January, February, and March.

PLANS FOR CLEVELAND ARE TAKING SHAPE

Viola Cassidy, director of the bureau of special education, Ohio State University, Columbus, has accepted appointment by President Fouracre to serve as program chairman for the ICEC meetings in Cleveland at the time of the NEA summer convention. The date is Monday, June 30.

Watch for the program announcement in the next BULLETIN and plan to be present.

DENVER PLANS FOR FALL REGIONAL

Denver, the "Mile High City," capital of colorful Colorado is the site of the November ICEC regional conference.

With the front range of the magnificent Rocky Mountains as a backdrop, the curtain will go up on November 5th. States and provinces joining in this enterprise include:

Alberta	Nebraska
Arizona	Nevada
Colorado	New Mexico
Idaho	North Dakota
Iowa	Oklahoma
Kansas	Saskatchewan
Manitoba	South Dakota
Missouri	Texas
Montana	Utah

Wyoming

Ellen Thiel of the University of Utah is program chairman, Norris Bush of the Denver Public Schools is local arrangements chairman, and Charles High of the Florida State Department of Education is the chapter workshop chairman.

Circle November 5-8 on your calendar now. Tours to many classrooms are already planned. In addition to furthering the programs for exceptional children, the scenic views and the lovely sights of nature which abound in this area will be with the visitor long after the conference.

Mountain Park System

Fifteen miles west of the city is Denver's Mountain Park System. It encompasses some of the most scenic areas of the Colorado Rockies and includes 28 named parks. The Denver Mountain Parks start at an elevation of 5681 feet and rise to Summit Lake, 12,740 feet.

Mount Evans is a most outstanding one-day scenic trip from Denver. Summit Lake is situated here, but the road which is America's highest automobile highway continues to the top of the peak at 14,260 feet. Numerous lakes, crystal-clear and formed by melting snows are in the area, which is a scenic paradise the year round.

If you must go to the seashore, do that this summer, because in November it will be Denver and the mountains as the perfect setting for this ICEC regional conference.

PLAQUES OF ELIZABETH FARRELL PRESENTED TO T.C. and ICEC

Teachers College, Columbia University, is, as the reader knows, the birthplace of ICEC. On August 10, 1922, a group of summer session students of that college and their instructor, Elizabeth E. Farrell, inspector of ungraded classes for New York City, organized what was then known as the *International Council for the Education of Exceptional Children.* Miss Farrell became its first president, serving from 1922 until 1926.

In recognition of Miss Farrell and her contribution to the early years of "ICEC," her family and one of her visiting teachers, Josephine Sherzer of New York City, have presented two plaques bearing her likeness—one to hang in Teachers College and one to hang in ICEC headquarters. Council President, Maurice H. Fouracre, head of the department of special education of Teachers College and Harley Z. Wooden, executive secretary, received the plaques at Teachers College, on January 31. They have accordingly transmitted, in behalf of the Council, notes of appreciation to the Farrell family and Miss Sherzer for their generous and kind thoughtfulness.

DIRECTORY BEING PLANNED

June B. Jordan, ICEC director of membership and sales, is developing a directory and handbook for chapter use, to be distributed free with membership supplies in the fall. It will contain the names and addresses of all international, state, provincial and local officers, international chairman, headquarters professional staff, and others. In addition bits of useful information concerning Council regulations and operation will be included.

The booklet is currently being planned as a loose leaf edition to make deletions and additions easy. The success of the undertaking will depend upon our ability to gather the names of local and "state" officers this spring. Solicitation for information will be made of the chapters in late April, because the printing must be done this summer. We are hopeful that the record may be complete.

SUMMER LISTINGS IN MAY

Listings of summer courses in special education will be published in the May issue of EXCEPTIONAL CHILDREN.

This is an annual service of the magazine. Your copy should arrive by the first of that month.

what; that he is not in the way; that he is neither a burden to his family nor hampering their freedom. Therefore, if these relationships are important to *all* children in terms of establishing a foundation of mental health that is conducive to learning, growing, and self-acceptance, how much more so is the importance of these relationships to the children with cerebral palsy? We know, too, that many parents of non-handicapped children need help in establishing these relationships; how much more help do parents of children with cerebral palsy need?

This ability to assist parents in these areas often requires specialized skill and knowledge. Although the classroom teacher has a role in helping parents the major portion of this effort must be assumed by a trained social worker or psychologist.

Educating the Community

As far back as history records there are indications that disabled persons suffered some form of rejection by society. In every era they have been hurt, either physically through bodily harm, or emotionally due to community ostracism. Today there is still a great need for realistic public understanding and acceptance of individuals with handicaps. Although we are moving in the right direction, our feelings are still limited by a lack of understanding and knowledge.

Some of the emotional feelings still known to exist about physically handicapped persons are: curiosity, pity, over-solicitousness, mild dislike, repugnance, complete rejection, and fear. The following is an example of one misconception concerning a child with cerebral palsy. An otherwise very informed parent of a three-year-old non-handicapped child, upon moving into a new neighborhood, phoned the author many miles away and wanted to know whether it was safe to permit her child to play with the cerebral palsied child next door. She wanted to make sure that cerebral palsy wasn't something "catching" that her child might get if he played with the child next door.

If we are to help the child with cerebral palsy further we must take into account the attitudes of the non-handicapped child. These attitudes are usually a result of unconscious adaptation of ideas, values, and behavior of parents, peers, and other persons with whom they have close associations. Their feelings are not based upon personal experiences but represent the absorbed beliefs of other people.

It has also been reported that the non-handicapped child may shy away from the cerebral palsied child because his security is threatened or that he may fear becoming like him. Often non-handicapped children are less repressed in the expression of their true feelings and openly express hostility toward the handicapped child. We are often confronted in literature and in reality with examples of children's inhumanity to other children. This is taken from a teacher's record about a cerebral palsied child in her "regular" class:

"L— tries to be friendly with children but they tease her very much and she becomes angry. She wants to play with children but they do not always want her as she is slower. She tries to do everything they do, and sometimes is not able. She used to come home crying when first hit, but now father tells her to fight back which she tries. She is very sensitive when youngsters call her names such as 'drizzle puss.'"

It is obvious then, that a program of education of the adults and non-handicapped children in a community is an essential part of an ideal program of education for children with cerebral palsy. The physical disability is not the most disturbing element to those who are handicapped. It is the feeling that he gets about how others behold his disability that is damaging. The prime effect being that of damage to the development of a wholesome self-concept and feelings of self-acceptance that are so necessary for happy living and good mental health.

It is hoped that as public information and facts concerning handicapped conditions are spread, as the known replaces the unknown, that a more objective universal attitude will come about.

Developing an Ideal Program

This ideal educational program can be developed only if there is a strong conviction on the part of the local association that children with cerebral palsy have needs beyond those related to their physical improvement and that their interests can best be served by fostering a total educational program that includes the integration of therapy and schooling. Unfortunately most cerebral associations do

not see this need when they first organize. It is at that stage, however, that the plans for education should be given the same top priorities as the therapies.

It should be the prevailing belief that an educational program for children with cerebral palsy is justified because of the tenets we have in this country that school is for *all* children who are capable of profiting from an education—it is a birthright and should be thought of in terms of being a public function and responsibility to the extent that the laws of most states mandate local governments to provide school opportunities for *every* child. *Every* child includes those who are gifted, average or retarded—those who are physically healthy as well as those physically limited. Certainly the child with cerebral palsy is included among the "*every*." This belief is perhaps best summarized by quoting from a recent report on the White House Conference on Education: "The school stands as the chief expression of the American tradition of fair play for everyone."

Parent associations must also have a strong feeling of how important an education is to a child with cerebral palsy. Our intricate technical society favors those who have had the advantages of an education to a degree that the limits of a person's vocational opportunities are usually in direct proportion to the extent of this education. It cannot be denied that a lack of an education is a handicap. How much more of a handicap is it then to a physically disabled person, who has certain vocational limitations at the onset, if he is denied an education—one equal and comparable to all other individuals?

Another helpful step (in bringing about an ideal educational program) would be for the cerebral palsy association to give consideration toward having educators, psychologists, and social workers on its professional advisory board. If the membership on most association professional advisory boards were reviewed we would find few educators on them. Most of the advisory boards consist of representatives of the medical profession only. Whereas the physicians should assume an important advisory position, the absence of educators on advisory committees has in the past resulted in the development of clinical programs only.

If acceptable goals, programs, and directions are to be formulated each association would also do well to work closely with their local board of education, local special education supervisor, and the State Education Department. The association should not be content with accepting halfway measures but should keep working toward the attainment of an ideal program. The long range plan should strive to extend our democratic principles of public education for all by promoting a program whereby all the educational needs of the child with cerebral palsy—physical, mental, social, emotional, and vocational—are provided for in the same matter of fact way it is for every other child in a community.

The development of an ideal educational program is to a great extent dependent upon cerebral palsy associations. The role of the association is to unify and coordinate thinking as to the need for a good educational program, inform the public of this need, and work for its development.

April

is

Teacher Career

Month

For information and prices of press kits, newspaper advertising mats, radio and TV "spots," cartoon handbooks, and leaflets write to

Press and Radio Relations Division
National Education Association
1201 Sixteenth, N.W.
Washington 6, D. C.

—G. ORVILLE JOHNSON

The following is a proposed study by Joseph M. Sadnavitch, instructor at the University of Nebraska in educational psychology and special education and previously director of special education, West Frankfort, Illinois, to be used for dissertation.

THE USE OF APTITUDE TEST SCORES FOR THE ASSESSMENT OF VOCATIONAL REHABILITATION OF MENTALLY SUBNORMAL INSTITUTIONALIZED INDIVIDUALS

JOSEPH M. SADNAVITCH
UNIVERSITY OF NEBRASKA

THE PROBLEM TO BE INVESTIGATED

The purpose of this study is to compare a group of institutionalized mentally subnormal individuals with other selected groups in relation to vocational aptitude potentials. The major objective of the project is to provide data which may be utilized for vocational guidance, counseling, and rehabilitation of the mentally subnormal group.

The procedures will include the administration of the General Aptitude Test Battery which was developed by the United States Employment Service. The test battery is composed of 12 tests; the scores of which will be combined to yield nine aptitude factors. The factors include intelligence, verbal aptitude, numerical aptitude, spatial aptitude, form perception, clerical perception, finger dexterity, manual dexterity, and motor coordination. The test battery will be administered to the individuals comprising the groups used in the comparisons. The scores obtained will be used to determine similarities and differences which exist between groups.

A second part of the study will consist of isolating the aptitude patterns of the test scores for individuals within each group. These patterns will then be tabulated in a frequency distribution which will denote the incidence in which patterns take place and characterize a group. The groups will then be compared in relation to the patterns established for each group. The 22 occupational aptitude patterns were established by the United States Employment Service and will be used for this purpose.

The final procedure used in this study will involve the conversion of the occupational aptitude pattern into specific occupations. The patterns which were previously identified as characterizing a group will be used to isolate occupations in which the members of a particular group should be expected to function successfully. The minimum aptitude score limits of a specific pattern which is related to certain occupations have been identified by the United States Employment Service, and will be utilized in determining the employability of the individuals within groups to be compared. Employability is defined as the extent to which an individual possesses certain aptitudes which are required for success in specific occupations.

THE MAJOR OBJECTIVES

1. To provide data which may be utilized for vocational guidance, counseling, and reha-

bilitation of the institutionalized mentally subnormal in the older adolescent and young adults categories.

2. To determine the extent of differences and similarities which exist between the subnormal and other groups defined as "normal."
3. To determine the extent and areas of employability of the subnormal group as compared with the other groups.
4. To provide data which will be applicable for additional refinement of the General Aptitude Test Battery in relation to individuals of lower ability.
5. To provide data for the United States Employment Service which can be used to facilitate vocational guidance, counseling, and placement for the mentally subnormal individuals.
6. To provide data for the Beatrice State Home for severely retarded children which will be used for the rehabilitation of institutionalized individuals in relation to future placement within a community.
7. To provide data for the Nebraska Office of Vocational Rehabilitation which will enhance a newly established program which is concentrating on the occupational adjustment of mentally handicapped.

Briefly, the major steps to be taken in this problem are:

1. *Kind of data to be gathered.*
   a. Aptitude test scores in the areas measured by the General Aptitude Test Battery.
   b. Other pertinent data concerning the individuals within the group which can be used for classification purposes such as chronological age, sex and educational level.
2. *Techniques to be used.*
   a. Administration and scoring of the General Aptitude Test Battery to selected groups within the institution for the mentally subnormal.
   b. Analysis of the data through the use of analysis of variance to establish the extent of differences and similarities which exists between groups.
   c. Frequency tabulation of aptitude patterns for each individual within each group to determine the characteristic pattern of the groups.
3. *Scope—Definition of population and sample.*
   a. The mentally subnormal population will include the older adolescent and young adult category of the institutionalized individuals at the Beatrice State Home located at Beatrice, Nebraska. The number of this group will range from 200 to 250 individuals.
   b. The other selected groups will include:
      (1) Approximately 400 freshman students currently enrolled in a Technical High School program which offers vocational rather than a traditional academic course of study.
      (2) Approximately 250 high school graduates who have completed the requirements for graduation in high schools which offer programs of academic nature.
      (3) Approximately 300 senior students currently enrolled in high schools which offer programs which are academic in nature, and who have not yet met the requirements for graduation.
4. *Analyses.*
   a. Analysis of Variance will be used to determine the aptitude areas which are significantly different between groups.
   b. Frequency tabulation will be employed to determine occupational aptitude patterns for each group.
5. *Estimated amount of time.*
   a. Approximately one-and-one-half years.
   b. To be completed by August, 1958.
6. *Expected end product.*
   a. This study will provide data pertinent to the rehabilitation of mentally subnormal youth and young adults in relation to vocational training and replacement.
   b. Report of research in which data will be made available to the Nebraska Office of Vocational Rehabilitation, United States Employment Service, and the Beatrice State Home. This report will include the occupational classifications and aptitude patterns for the groups used in this study.

Alfred A. Strauss, 1897-1957

ROBERT A. GARDINER, THE COVE SCHOOLS
RACINE, WISCONSIN

Alfred A. Strauss, internationally known authority on the education and rehabilitation of brain-injured children, died at Chicago's Michael Reese Hospital, late in 1957. He was 60. He was born in Karlsruhe, Germany, May 29, 1897.

Dr. Strauss was president and co-founder of the Cove Schools of Racine, Wisconsin, and Evanston, Illinois. He had served as consultant to the Division of Special Education, Illinois Office of Public Instruction, and as special lecturer at Wayne State University, Detroit, and the Milwaukee State Teachers College, Milwaukee.

At the time of his death, Dr. Strauss was engaged in research in linguistics and aphasia. His pioneering work in educational rehabilitation of the brain-injured child with disturbances in perception and concept formation had won wide acceptance among educators, psychiatrists, and psychologists.

Much of his interest was directed toward developing teaching methods which took into account the perceptual and conceptual disabilities of children whose brain functioning had been altered by injury. These methods were applied at the residential facilities of the Cove Schools at Racine and at the day school in Evanston. They resulted in rehabilitating children who could not previously adjust to or learn in conventional school classrooms to the point where these children could achieve in public school programs.

The methods of teaching developed by Dr. Strauss and his associates have been applied successfully in special classes for children with disturbances in perception and concept formation in the Joliet, Illinois, public school system and in Macon, Georgia.

Dr. Strauss received his medical degree from the University of Heidelberg in 1922. After five years of special training in psychiatry and neurology, he entered private practice and worked at the same time as research associate at the university psychiatric clinic.

In 1930 he was appointed director of the outpatient department of the University's Psychiatric and Neurological Clinic and became at the same time associate professor (privatdozent) of neuropsychiatry. He also was child welfare consultant to the City of Heidelberg, the school board and the municipal children's home.

With the first rumblings of Hitler, Dr. Strauss left Germany. He was invited to Spain where he became in 1933 visiting professor at the University of Barcelona and helped to establish the first municipal child guidance clinic. He also founded the first private child guidance center in Barcelona during his three years in that country.

He then came to the United States in 1937 to join the staff of the Wayne County Training School at Northville, Michigan, as a research psychiatrist. After becoming a naturalized citizen in 1943, he was appointed director of child care of this institution.

Dr. Strauss held this post until 1946 when he resigned because of illness. In 1947, he founded the Cove Schools at Racine as a residential school for brain-injured children. The Evanston day unit was established in 1950. Both institutions are continuing.

In his early years in the United States, Dr. Strauss devoted his attention to developing a number of qualitative tests diagnostic of brain injury in children. The psychological examination of problem children has been greatly and lastingly enriched by the addition of the tests themselves to the psychologist's armamentarium as well as by the description of the clinical picture of the behavior and response characteristics of the brain-injured child. The result has been a distinct refinement in the differential diagnosis of the brain-injured, neurotic, and psychotic child.

One of Dr. Strauss' major contributions was the demonstration of differences in mental organization between the brain-injured mentally retarded (exogenous) child and the familial mentally retarded (endogenous) child. Through these researches the long-held concept of mental deficiency as a homogeneous entity characterized simply by a slowness of development due to inherited defect was revised. A far-flung effect of the reorientation of thinking

which followed was to free the normal parents of mentally retarded children from shame and guilt and enable them to bring constructive energies to the solution of the problems of their children. It is not an overstatement to say that this pioneering work in a neglected field was one of the sparks which kindled the present awakening of efforts on behalf of these children.

Perhaps his most significant contribution was made in later studies which identified the child who was without intellectual deficit but who showed characteristics of brain-injury in tests, in behavior, and in learning. The adequate diagnosis of these children then opened the way toward a more specific and therefore more adequate educational therapy which would take into account their perceptual, conceptual, and attention problems. This was the first attempt at a psychologically inclusive systematic description of this new clinical syndrome in child psycho-pathology—the minimally brain-injured child.

Many authorities are of the opinion that the full impact of Dr. Strauss' later work has not yet been felt. His attempt to relate particular kinds of deviant behavior as well as conceptual and perceptual irregularities to organic damage is thought to be a step toward the solution of the problems of the many patients who are unresponsive to the usual psychotherapeutic approaches.

The studies in aphasia were interrupted by his death. He had hoped to outline a frame of reference—genetic, pathologic, and linguistic—in which this problem could be better understood, the ultimate goal being improved therapeutic methods.

Dr. Strauss' findings and applications have been widely published. He is the author, with Laura E. Lehtinen, of *Psychopathology and Education of the Brain-Injured Child* (Grune & Stratton, New York, 1947); with Prof. Newell C. Kephart of Purdue University of Volume II of this work which reports continuing progress in theory and clinic, (1955) and is co-author of a book for parents entitled *The Other Child* (Grune & Stratton, 1951).

THE PROGRESSIVE MATRICES AND THE STANFORD-BINET WITH EXCEPTIONAL CHILDREN

LOUIS M. SMITH

WASHINGTON UNIVERSITY

In the last few years psychologists and clinical workers with children have begun to use the Progressive Matrices (PM) widely. Accompanying this, there have been many brief research investigations[1] determining the relationship of the PM test with the more widely used typical measures of intelligence (1, 2, 3, 4, 5, 7, 8). These short papers, among a number of others, have indicated a moderate to very high relationship with the Stanford-Binet, Wechsler, and several group intelligence tests. The samples included in these investigations vary from unselected populations of public school children to more specific clinical subgroups, usually in special education programs. This investigation, again a very brief report, follows in the same tradition of many of these. One unique characteristic is the group of children tested.

The present sample includes 95 elementary children, 65 boys and 30 girls, ranging in age from 5 to 11 years. The uniqueness of the group is that all the children are unselected cases referred to the school psychologist. The one criterion, in the several month period, was that all children were judged able to be tested with the Stanford-Binet. The group included mentally retarded, reading disability cases, truants, physically handicapped, school-family problem cases, promotion problems, and in a number of instances, children who had been in classes for the

TABLE 1—CORRELATIONS BETWEEN THE STANFORD-BINET, FORM L, AND THE RAVEN'S PROGRESSIVE MATRICES, CHILDREN'S FORM

Group	*N*	*r*
1. Total sample	95	.74
2. Boys	65	.70
3. Girls	30	.69
4. 5 and 6 year olds	36	.79
5. 7 year olds	24	.72
6. 8-11 year olds	35	.72

[1] These data were collected while the writer was a school psychologist with the St. Paul, Minnesota, Public Schools.

mentally retarded who were being retested as part of the regular re-evaluation. The tests were given in mixed order with an attempt over the period of weeks to balance the frequency of each being administered first.

The results are similar to the findings presented in the studies cited above. Included in Table 1 are the correlations, with values approximating .7, for the total group and the several subgroups. The implications of these findings are that the school psychologist has another valuable tool for his practical day-to-day work with deviant children. Coupled with an instrument such as the Ammons Full Range Picture Vocabulary Test (6) one has an exceedingly fine verbal and performance battery requiring no speech, minimal motor participation, and simplicity of directions in an intelligence test. Further careful work in standardizing and obtaining norms for the Progressive Matrices seems strongly advisable from the present evidence.

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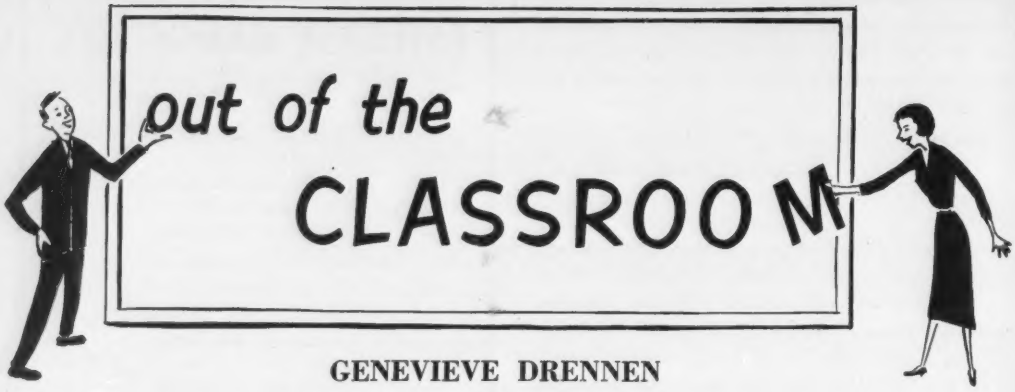

GENEVIEVE DRENNEN

Resource Units Conservation of Hearing Program

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Hearing is of interest to children of all ages. Children have enjoyed hearing from earliest infancy without being overly aware of this major sensory means of interpreting the world about them. Such enjoyment can be directed into challenging learning experiences through motivation, teaching methods, and a variety of teaching materials that are adapted to the needs of children as they develop in learning capacities and interests.

These educational experiences can very easily be related to the hearing testing that has become a regular part of the elementary school program. The ideal time to present a unit on sound, ears, and hearing would be just before the actual hearing testing experience. Regularly scheduled hearing tests have an implicit value—locating hearing-deviant children who have specific medical and educational needs; but just as important a function of hearing tests is the encouragement of inquiry about hearing and its conservation.

Educators have a responsibility for developing the child's awareness of:

- his dependence upon his senses
- the importance of more complete utilization of those senses
- the means of and necessity for conservation of senses. Understanding of body functions is difficult for elementary school children and is more easily achieved in relation to a direct experience. One means of expediting this understanding of the manifold aspects of the hearing process is through correlation with a hearing testing experience. These resource units are presented as an aid in that correlative process.

The Need for a Hearing Conservation Program

Hearing conservation is an important part of a school health program for all children.

Hearing loss can be as devastating to the educational, emotional, and social development of the child as some of the more obvious handicaps. In fact hearing loss is known to be one of the most socially isolating of all handicaps. Results of hearing conservation programs have indicated that between two and three percent of the school population have some degree of hearing loss. Among the hearing impaired children, those with partial hearing losses are the most neglected. This is due in

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great part to the subtlety and varying degree of hearing loss which usually is undetected unless special means are provided for case finding. The deaf child can be identified more easily without these special means by the outward manifestations of severe hearing loss and its accompanying speech problems. Because it is the hard of hearing child for whom the most can be done in terms of medical and non-medical treatment, the importance of hearing conservation programs cannot be over-emphasized. In one area where over 100,000 children were screened audiometrically and otologically, it was discovered that in about 80 percent of the cases found, neither the child nor the parent had previously been aware that a hearing loss existed.

Hearing testing is an essential component of an adequate hearing conservation program, as it is the means by which children with impaired hearing and concomitant medical and educational needs are identified. Yet testing is but a means to the real goal of preservation of hearing and alleviation of deviant conditions. A citizenry aware of the necessity for concerted effort is the agent through which this goal will be realized. The resource unit as developed herein is predicated on the assumption that only by supplying a diversity of resources can the particular needs of the teacher and student group be met. These resources selected for use will be the ones which will facilitate the cooperative planning of students and teacher toward the realization of their objectives.

The Purposes and Parts of Resource Units

The purposes for which resource units are developed are particularly applicable to the units presented here, as they are to be articulated with the various areas of the curricula. Such purposes, outlined by Alberty (6), are:

- to furnish suggestions for materials, procedures, methods, activities, teaching aids, and evaluative procedures for building a learning unit

- to provide a means of helping the teacher to organize materials so that he can depart from the traditional use of the textbook as a guide in curriculum development
- to provide suggestions for the teacher for translating an educational philosophy into practice
- to serve as a guide in helping the teacher to include in the learning unit certain important values basic to education in a democracy
- to sensitize the teacher to all the significant problems and issues that have a bearing on an area of living
- to utilize the personnel resources of the school appropriate to the co-operative pre-planning of a particular unit
- to conserve the time of the teacher
- to make it possible to have teaching materials available when needed.

Objectives of the Units

Learning involves changes in behavior; these changes can be stated as understandings, attitudes, and skills that are observed or measured in the evaluation of achievement of stated objectives. Thus, objectives are at once both established goals and means to additional goals—an index to the success of, and an integral part of the progression of, the learning process.

The objectives that follow are treated as sections of the three graded units, one unit for grades one and two, one for grades three and four, and one for grades five and six. In many public schools, children are given hearing tests every two years, in the odd or even numbered grades. The resource units are developed for two successive grades, to be adaptable to either of the two systems of hearing testing scheduling.

The general objectives of these units are stated as follows:

- to understand sound in relation to the hearing process
- to become oriented for a hearing testing experience
- to appreciate the importance of hearing conservation.

The specific objectives of these units are:

- to learn about sound
- to gain an understanding of the simple anatomy and physiology of the human ear
- to secure information on care of the ear
- to insure understanding of and to promote tolerance toward individuals with hearing impairment
- to develop an awareness of the importance of hearing in the world today.

An Illustration of a Resource Unit: The following are illustrative portions of a resource unit for use with the conservation of hearing program in grades five and six:

SOUND

Objective: *"to learn about sound."*

Learning Experiences	Materials and Procedures	Learning Experiences	Materials and Procedures
Reading to determine how sound is produced.	Address et al, *Doing Your Best for Health.* (2) * p. 119. Carpenter et al., *Adventures in Science with Ruth and Jim.* (7), p. 123. Dowling et al., *Understanding Why.* (9), p. 163	Seeing a film on sound.	(additional references) Establish the relationship between motion and sound; talk about the kinds of sound waves, the variety of vibrating substances. *Nature of Sound.* (13) Ele-

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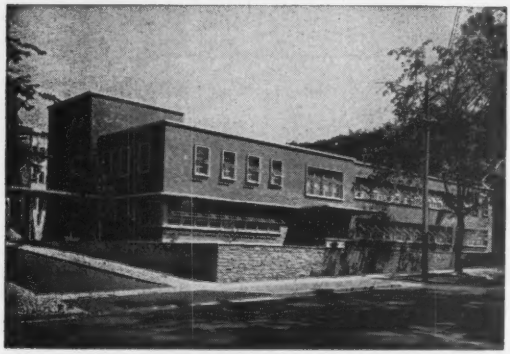

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Learning Experiences	Materials and Procedures
	ments of sound demonstrated by a radio ham operator; necessity of comparison of various media for sound transmission; animated; drawings of sound waves.
	(additional listings)
Experimenting to prove that sound is air in motion.	Read: Dowling et al., *Discovering Why*. (8), p. 37.
	(additional references)
	Hold a steel knitting needle firmly against the top of a desk or table, snap; quickly; strike a tuning fork sharply on solid surface, place on surface of a pan of water; stretch a rubber band between two chairs and snap quickly; place a cork on a drum-head and hit drum; swish several different kinds of sticks through the air; touch a violin while it is being played; blow over narrow-necked bottle. Determine in each instance what causes sound and relate to air in motion.
Making a toy phonograph.	Morgan, *Boy's Book of Science and Construction*, (10), p. 223. More advanced or interested students could build a phonograph from detailed plans to illustrate vibratory pickup from recordings.
Observing the sound apparatus and hearing organs of insects.	Read: Bronson, *The Grasshopper Book*. (3), p. 15, 70. Teale, *The Junior Book of Insects*. (12), p. 208. Read of the sound apparatus of grasshoppers and see the illustration, p. 13 of Bronson; illustration of ear, p. 28 and of scrapers and flies on p. 77 of Bronson. Teale tells of distinguishing sounds of grasshoppers, crackets, and katydids.

* *Numbers in parentheses are key to Index of Teaching Materials.*

THE HUMAN EAR

Objective: *to gain an understanding of simple anatomy and psysiology of the human ear.*

Learning Experiences	Materials and Procedures	Learning Experiences	Materials and Procedures
Discussing the five senses in terms of our dependence upon them for interpretation of the world about us.	Read: Burkard et al., *Builders for Good Health,* (5), p. 225; *Your Health and Happiness,* (6), p. 153. Talk about the kinds of impressions of our environment that we receive through sight, hearing, taste, touch, and smell. List kinds of stimuli under each of the five senses, developing an awareness of all that we perceive is through the sense channels.	Reading about the parts of the human ear.	Guide diagrams are included in the references listed above. Copies of the following would be useful: *Anatomical Drawing of Ear.* (15) (other references)
		Examining a model of the human ear.	*Denoyer-Geppert Model Y3, Ear.* (16). This model is dissectible into four parts. Locate the parts of the ear and relate to the functioning of the ear.

CARE OF THE EAR

Objective: *to secure information on the care of the ear.*

Compiling a list of good health rules that relate to the care of the ear. Taking care of a cold and accepting the responsibility for preventing the spread of colds.	Andress et al., *Building Good Health.* (1), p. 157 (additional references) Read: Brownell and Evans, *Broad Streets.* (4), p. 103. Determine how colds can result in ear difficulty. Talk about way to treat colds and means of protecting others from our colds.	Familiarizing ourselves with hearing testing procedure. Listening to an explanation of the hearing testing program and watching a demonstration of an audiometer by a resource person.	Read: Andress et al., *Doing Your Best for Health.* (2), p. 124. (additional references) Discuss the purpose of the hearing testing program. Trace the sequence of group screening, individual puretone test, examination by a specialist and the medical and educational recommendations, follow-up. Resource person: ear specialist, hearing therapist, nurse.

HEARING IMPAIRMENT

Objective: *to insure understanding of and to promote tolerance toward individuals with hearing impairment.*

Investigating to determine causes of poor hearing.	Read: Andress et al., *Building Good Health.* (1), p. 157. (additional references) Establish possible relationships between colds and impaired hearing. Talk about danger of loud noises, infections, foreign objects in the ear, childhood diseases.	Reading about a hard of hearing boy who finally accepts his handicap.	Shacter and Bauer, *You and Others.* (11), p. 163. "All Mixed Up" is about a boy who has a hard time facing the fact that he has a hearing loss, but who learns how much easier it is to accept the handicap and learn to live with it. Talk about ways that we can help those around us who have hearing losses to make a better adjustment to them.

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Learning Experiences	Materials and Procedures	Learning Experiences	Materials and Procedures
Listening to a transcription about the causes of deafness and precautions for preventing deafness.	*Silence is Not Golden; Prevention of Deafness.* (17) A story explains the causes of deafness and outlines the steps which should be taken to avoid deafness.	Presenting a panel discussion on a topic related to hearing impairments.	Have the panel prepare a presentation on such topics as: Preventing Hearing Loss Living with a Handicap Helping Those with Hearing Difficulties.
	IMPORTANCE OF HEARING		
	Objective: *to develop an awareness of the importance of hearing in the world today.*		
Discussing the variety of the sounds about us.	Read: Andress et al., *Doing Your Best for Health.* (2), p. 119. (additional references) Consider why it is important to be able to hear such things as: an alarm clock, a dog growling, a policeman's whistle, a parent calling, directions in school, radio, and television. Develop an awareness of the role of our ears in interpreting the world around us.	the importance of hearing.	ment." Defend the statement in terms of personal experience and concepts derived from the study of hearing and importance to us every day.
		Doing individual research and presenting oral reports on topics related to sound, ears, and hearing.	Some possible topics are: Music and Noise; Why Sounds are Different; Ear Safety While Playing; Rattlesnake Sounds; Stereophonic Sound; etc.
Writing an exposition of an idea based on understandings derived from study of	Write on the topic: "There is no such thing as complete quiet in a world of move-	Collecting illustrations of how man has learned to use sound for a bulletin board display.	Collect magazine illustrations, newspapers, models of devices that incorporate sound in their use.

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12. Teal, Edwin Way, *The Junior Book of Insects.* New York: E. P. Dutton and Company, Inc., 1953. 249 pages.

FILM:

13. *Nature of Sound,* 10 min., sd., b&w, color, Coronet, 1948. A radio ham uses his equipment to demonstrate the nature of sound to a young boy. The necessity of some medium for transmission of sound and comparative effectiveness or air, water, and glass. Animation shows waves of compressed and expanded air leaving a ringing bell. Reflection of sound waves.

FILMSTRIPS:

14. *How We Hear,* 39 frames, Society for Visual Education, 1345 West Diversey Parkway, Chicago 14, Illinois. Nature of sound. Parts of ear and their functions. Diagrams include a cross section of the labyrinth, the modiolus, and the action of the perilymph.

DIAGRAM:

15. *Anatomical Drawing of Ear,* 24″ x 36″ or 8½″ x 11″, Telex Corporation, Telex Park, Minneapolis, Minnesota.

MODEL:

16. *Denoyer-Geppert Model Y3, Ear,* 13½″ x 8½″ x 9″, Denoyer-Geppert, Inc., 5235 Ravenswood Avenue, Chicago 40, Illinois. Large scale model of the outer, middle, and inner ear, showing relationships of the auditory canal, eardrum ossicles, semi-circular canals, cochlea, and Eustachian tubes. Dissectible into four parts.

TRANSCRIPTION:

17. *Silence Is Not Golden: Prevention of Deafness,* 15 min., Mutual Life Insurance Company.

A story explaining the causes of deafness and outlining the steps which should be taken to avoid it.

SLIDES:

18. *Diagram of Inner and Outer Ear Showing Gross Structure,* slide 11 of Special *Senses* Unit, 3¼″ x 4″, principal parts labelled Keystone View Co., Meadeville, Pennsylvania.

CHART:

19. *Schick Anatomical Charts, No. 6, Ear,* 44″ x 35″, color, key on chart, Rudolf Schick Publishing Company, 700 Riverside Drive, New York 31.

    Shows all anatomical details, emphasizing the relationships of outer, middle, and inner ear and the Eustachian tube.

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This article is from a thesis submitted in partial fulfillment of the requirements for the degree of Master of Education at the University of Washington, prepared under the supervision of Edgar M. Draper and Alice H. Hayden.

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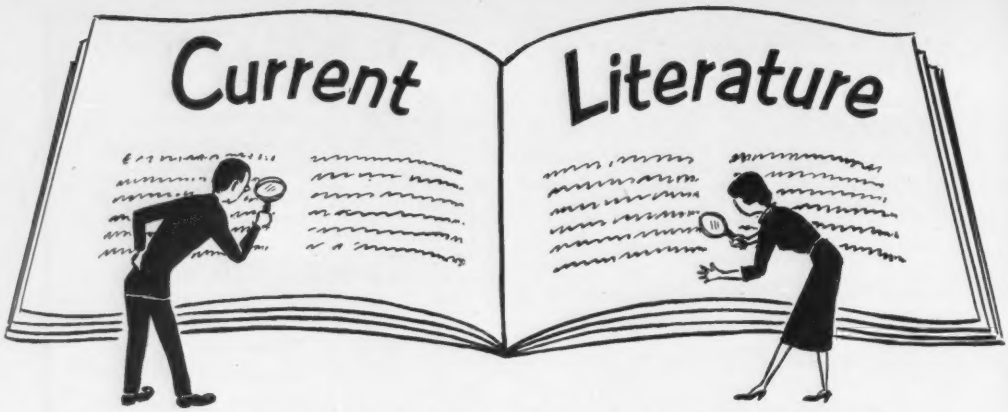

Compiled with the Assistance of the Library, National Society for Crippled Children and Adults, Chicago

NEW BOOKS BRIEFLY REVIEWED

AMERICAN BOARD FOR PSYCHOLOGICAL SERVICES. *1957 directory of psychological services; an approved list prepared by . . . .* 1957. 156 p. The Board, 9827 Clayton Rd., St. Louis 17, Mo. $1.

A highly selective list of psychologists and agencies offering psychological services to the public; all have been evaluated by the American Board for Psychological Services and have met required standards.

GORDON, HENRIETTA L. *Casework services for children; principles and practices.* 1956. 493 p. Houghton Mifflin Co., 2 Park St., Boston 7, Mass. $5.50.

Seven basic casework services—foster care, boarding home and institutional care, adoption, day care, protective service, and casework with children in their own homes—are defined and the special help offered by each to the child is discussed. Casework for special boarding homes or institutions for emotionally disturbed children, the retarded, the delinquent, or the child with special disabilities is not covered in this book, although the principles discussed are basic for these services also.

GOWMAN, ALAN G. *The war blind in American social structure.* 1957. 237 p. American Foundation for the Blind, 15 W. 16th St., New York 11, N.Y. $4.

This is a study of social patterns and the constantly changing attitudes of family, relatives, and strangers toward the handicapped person which result in conflict within the handicapped individual. Both as a social and psychological study, it will interest teachers and all those working with the handicapped, enabling them to understand more completely the personality structure of the blind and similarly, other types of handicapped persons. Stereotyped beliefs concerning the blind and held by seeing persons are discussed, as well as the impact of socially induced tensions upon the blind, attitudes of the blind toward themselves, and the psychological factors which influence their adjustment.

HEALTH INFORMATION FOUNDATION. *An inventory of social and economic research in health; 1957 ed.* 1957. 327 p. (6th ed.) The Foundation, 420 Lexington Ave., New York 17, N.Y.

This edition indexing current research in the health field lists 643 entries covering studies and projects now in progress.

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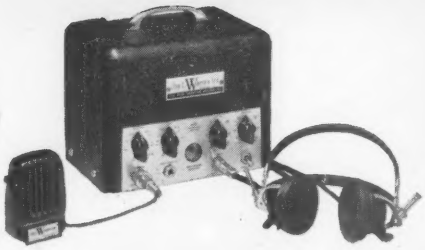

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HUFFMAN, MILDRED BLAKE. *Fun comes first for blind slow-learners . . .* with a foreword by Samuel A. Kirk. 1957. 157 p. illus. Charles C Thomas, Publ., 301-327 E. Lawrence Ave., Springfield, Ill. $5.

A report on a study of 31 children who were taught at various times by the author during four consecutive school years at the California School for the Blind. Most predominant handicaps of these children were mental retardation, emotional disturbance, and blindness; some were also handicapped by cerebral palsy, speech defects, or a hearing loss. Mrs. Huffman analyzes her teaching procedures, educational goals, the groups taught, and the experiences provided by work with residential school pupils.

Discussion, photographs, and annotated copies of tape recordings illustrate the emotional, educational, and social growth of the children. Practical suggestions given as guide material will be of benefit to all teachers of blind children and sighted mentally retarded children.

MEHTA, VED. *Face to face; an autobiography.* 1957. 370 p. Little, Brown and Co., 34 Beacon S., Boston 4, Mass. $4.50.

The author, blinded by meningitis at the age of three, was finally accepted by the Arkansas School for the Blind as a student when he was 15. His father, a Western-trained doctor, sent him to a rehabilitation center for blinded Indian veterans where he learned to read Braille before he was 13. In America he found the education and independence which India could not afford him; he won a scholarship to Pomana College eventually, and was elected to Phi Beta Kappa in his junior year. At present he is attending Balliol College, Oxford, studying for the day when he may return to India to take an active part in his country's rehabilitation. His account of life in America and its schools, of the friendships he formed, and of the self-reliance he gained are a warm tribute to the land which he feels gave him so much.

MINSKI, LOUIS. *Deafness, mutism, and mental deficiency in children.* 1957. 82 p. illus. Philosophical Library, Inc., Publ., 15 E. 40th St., New York 16, N.Y. $3.75.

A discussion of the diagnostic difficulties in differentiating between mental defect and deafness accompanied by maladjustment or the child with normal hearing but no speech. The material here is based on experiences in a research unit in England, set up to attempt the establishment of tests which would help in distinguishing such diagnoses.

PATTISON, HARRY A., ed. *The handicapped and their rehabilitation.* 1957. 944 p. illus., charts, tabs, Charles C Thomas, Publ., 301-327 E. Lawrence, Springfield, Ill. $14.75.

In this comprehensive book covering the philosophy of rehabilitation, the various disabilities involved, and the training requirements for personnel in the professional disciplines making up the rehabilitation team, 44 well-known authors in the field have contributed chapters in their specialties. Much of the material reflects Veterans Administration experiences in rehabilitation, and the influence of state-federal programs of rehabilitation as well. Included are chapters on the rehabilitation of the physically handicapped child, by Morton Hoberman; on audiology and speech correction, by Kenneth O. Johnson and G. Donald Causey; on blindness, by M. Robert Barnett; and on epilepsy, by Donald J. Simons.

WOODS SCHOOLS. *Vocational training and rehabilitation of exceptional children; proceedings of the 1957 Spring Conference of the . . . Chicago . . . held in collaboration with the Dr. Julian D. Levinson Research Foundation.* 1957. 144 p. The Schools, Langhorne, Pa. $1.

The Conference reviewed current practices and program planning in the areas of prevocational and vocational training for exceptional children in public schools, residential schools, and sheltered workshop settings, as well as the development of rehabilitation programs at national, state, and local levels. Also considered were medical studies necessary to evaluate vocational aptitudes and rehabilitation needs; in addition, biochemical research partinent to the field of exceptionality was discussed.

PERIODICAL ARTICLES AND PAMPHLETS

Auditory Impairments

ZALIOUK, A., COHEN, SIMON; and ZALIOUK, D. "Intelligible speech through a visual-tactile system of phonetical symbolization," *Volta Rev.*, Dec., 1957. 59:10:426-35, 454.

Included is a descriptive list of the phonetic symbols used in the Visual-Tactile System, with a graphic presentation of the method depicting the combination of positions and movements of the phonemes.

Orthopedic and Neurologic Impairments

OYER, HERBERT J. and FLEEMAN, CAROLYN S., "Social therapy for individuals having cerebral palsy." *Cerebral Palsy Rev.* Nov.-Dec., 1957. 18:5:12-14.

Describes a new experiment in day camping for cerebral palsied children in the Lima, Ohio, area.

SILLER, JEROME and PEIZER, EDWARD. "Some problems of the amputee child in school." *Education.* Nov., 1957. 78:3. 7 p.

Explains how the teacher can ease the initial contact between the amputee and the class and offers some facts on the extent of disability and the problems it poses.

Retarded Mental Development

ALLEN, GORDON. "Patterns of discovery in mental deficiency." *Eugenics Quart.* Dec., 1957. 4:4:206-207.

The genetic mechanisms of four general types which determine major patterns of research are illustrated here with a specific type of mental defect—mongolism, phenylketonuria, Recklinghausen's neurofibromatosis, and cases of familial defectives.

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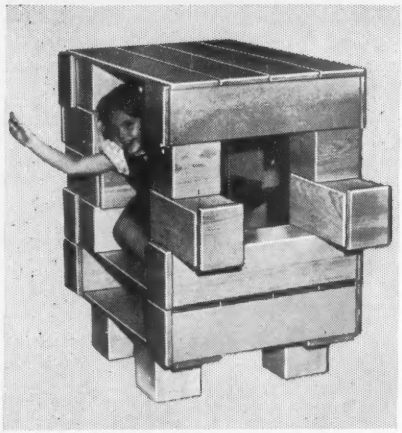

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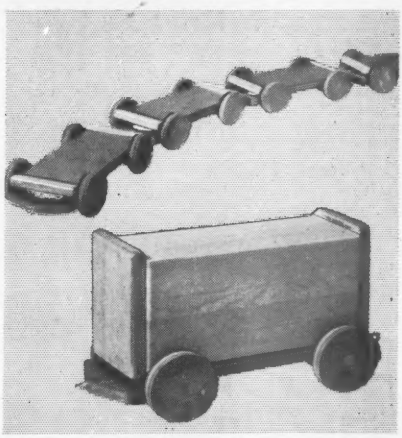

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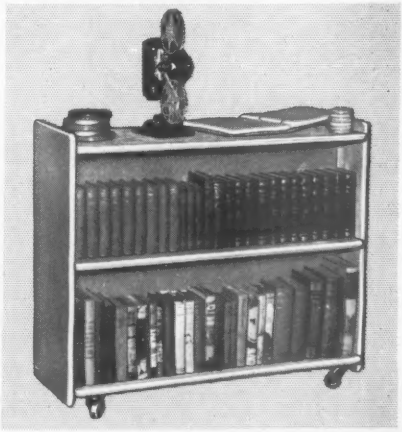

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CURR, WILLIAM. "The religious education of retarded children." *Special Schools J.* Nov., 1957. 46:5:19-20, 22, 36.

A research report on the comparative readability and interest for children of the various versions of Bible stories and the nature of concepts held by children receiving thorough and competent religious instruction.

NEW YORK. STATE JOINT LEGISLATIVE COMMITTEE ON MENTAL RETARDATION. *Report of the . . . 1957.* 1957. 67 p. illus. *(Legislative doc. (1957) no. 82)* Available from State Senator Earl W. Brydges, Chairman, Joint Legislative Committee on Mental Retardation, Albany, N.Y.

Facilities for the education and care of the mentally handicapped have expanded considerably but proposals submitted to Committee members in personal interviews and in public hearings cover many broad areas for improvement of services through state legislation and aid.

POWERS, GROVER F. "Professional education and mental retardation." *Pediatrics.* Dec., 1957. 20:6:1088-1094.

Points out various ways medical schools can enrich their curricula and teach the necessary facts about handicapping conditions.

Speech Impairments

MISSOURI. STATE DEPARTMENT OF EDUCATION. *Administrative guide in speech correction.* 1957. 55 p. diag., forms. Available from Mr. Richard S. Dabney, Director of Special Education, State Dept. of Education, Jefferson Bldg., Jefferson City, Mo.

Prepared for use by speech teachers and administrators responsible for providing the necessary facilities for speech therapy, this bulletin contains a description of the type of room best suited for speech correction work, recommended equipment and supplies, the role of the speech correctionist, and suggested forms for the systematic operation of a speech correction program.

Visual Impairments

ALBRECHT, MARCELLA. "A curriculum for a class of mentally retarded blind children." *Internatl. J. Educ. of the Blind.* Dec., 1957. 7:2:33-42.

Describes a program planned for an experimental class of mentally retarded blind children at the Wisconsin School for the Visually Handicapped.

AMERICAN FOUNDATION FOR THE BLIND. *Survey of library service for the blind, 1956,* by Francis R. St. John. 1957. 134 p. tabs. The Foundation, 15 W. 16th St., New York 11, N. Y.

Summarized by Helga Lende in the Dec., 1957, issue of *New Outlook for the Blind,* pages 466-72.

The report covers the present organizational pattern of service, its history, work of the Library of Congress and its regional distributing libraries, reader distribution, talking book machine distribution, and financing of regional libraries, their personnel, adequacy of physical plants and equipment, records and circulation routines.

HOOPER, MARJORIE S. "The Nemeth Code; how and why." *Internatl. J. Educ. of the Blind.* Dec., 1957. 7:2:56-60.

A brief history of the development and adoption of the Nemeth Code of Braille Mathematics for the embossing of mathematics works in Braille.

NELESON, LEONARD. "A non-institutional program for the education of blind children in Israel." *New Outlook for the Blind.* Dec., 1957. 51:10:457-65.

The executive director of the American-Israeli Lighthouse, with headquarters in New York, presents to Israeli educators and others interested in work with the blind a pilot program of education for blind children in a public school.

RITTER, CHARLES G. "Questions and answers on low vision." *New Outlook for the Blind.* Dec., 1957. 51:10:446-53.

Information on special aids and appliances—corrective glasses, magnifying lens, telescopic spectacles, and projection readers—and how they can help to meet the individual person's needs.

General

AMERICAN EUGENICS SOCIETY. "A reading list on eugenics." *Eugenics Quart.* Dec., 1957. 4:4:214-18.

A bibliography for those who want to study general aspects of eugenics or some particular aspect of the science. 63 references.

HOLROYDE, C. "The physically handicapped child; normal school or special school?" *Special Schools J.* Nov., 1957. 46:5:14-18.

Defines the term "physically handicapped" as it applies to school children in Great Britain. Various types of educational plans are discussed—day and boarding special schools, home instruction, and hospital schools.

LEWIS, ALICE E. "Sources of volunteer services." *Am. J. Occupational Ther.* Nov.-Dec., 1957. 11:6:325-328, 338-39.
A listing of 51 national organizations whose local members are interested in and available for volunteer services. 54 references.

MIDDLEWOOD, ESTHER L. "The child who does not adjust in public schools." *Child Welfare.* Dec., 1957. 36:10:8-11.

The erroneous idea of making the child fit the curriculum rather than the school fit the child's needs is responsible for many failures of children in public schools. The author suggests ways in which the teacher can foster a feeling of worth in the child, even when the child's family life is faulty.

NORRIS, EDWARD N. "The function of the physical therapist in program planning for the adolescent patient." *Phys. Therapy Rev.* Dec., 1957. 37:12:789-93.

A discussion of the physiological and psychological considerations to be taken into account when treating the physical problems of the disabled adolescent.

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OLSHANSKY, SIMON S. "The disabled as an outsider." *Cerebral Palsy Rev.* Nov.-Dec., 1957. 18:54:4-5.

The author holds that the disabled are excluded from employment for the same reasons that any minority group worker is rejected—they are "different," do not fit the stereotypes held by the "in group," and they are "outsiders."

BOY SCOUTS OF AMERICA. *Scouting with handicapped boys.* 1957. 64 p. illus. Boy Scouts of America, P. O. Box 521, New Brunswick, N. J. 75c.

An attractive new booklet with many photographic illustrations, briefly explaining the purpose of Scouting, its value to the handicapped boy, and how the program has been adapted to meet individual needs.

CONDON, MARGARET E. "10-year survey of physically handicapped students at the City College of New York." *Personnel and Guidance J.* Dec., 1957. 36:4:268-71.

From a survey of 300 former students, it was found that college trained physically handicapped students were competing well with the non-handicapped in working situations. The cerebral palsied were the one group that proved the exception.

PATTERSON, C. H. "The use of projective tests in vocational counseling." *Educ. and Psych. Measurement.* Winter, 1957. 17:4:533-55.

Material in this article is from a chapter in a forthcoming book by Dr. Patterson titled *Counseling the Emotionally Disturbed* to be published by Harper and Bros.

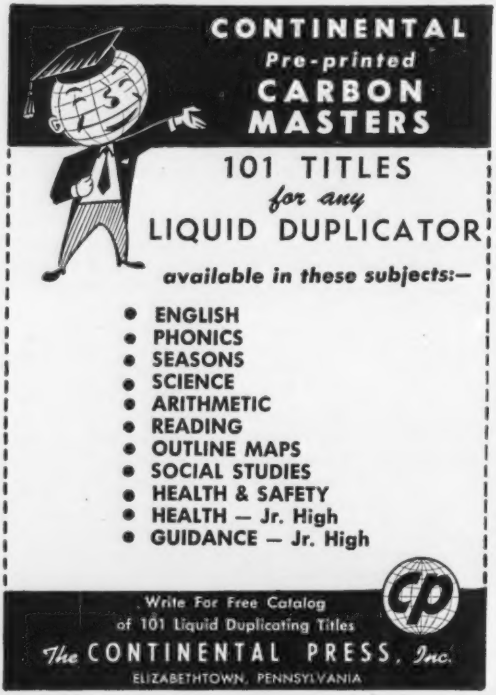
RIESE, HERTHA. "Psychiatric approach in educational therapy with emotionally disturbed children." *J. Am. Med. Women's Assn.* Nov., 1957. 12:11:369-76.

In the same issue: "The Mobile Psychiatric Clinic of the Medical College of Virginia," by Patricia R. Denton, p. 377-78.

Describes work of the Educational Therapy Center, originally a private agency in Richmond, Va., now affiliated with the Virginia State Dept. of Mental Hygiene and Hospitals.

U. S. OFFICE OF EDUCATION. *Local school construction programs,* by N. E. Viles. 1957. 80 p. tabs. *(Bul. 1957, no. 20).* U. S. Superintendent of Documents, Government Printing Office, Washington 25, D.C. 55¢.

Prepared to aid local officials in setting up long-range school-plant programs.



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Film: *Kid Brother.* For information on rental libraries and rates, write to National Association for Mental Health, 13 East 37th Street, New York 16, N. Y. Black and white; sound; running time, 25 minutes; rental, $7.

DESCRIPTION: The film has been designed to provoke discussions in groups of young people who have frequent contact with teen-agers. Avoiding excessive dramatics and scenes of violence, the picture penetrates youth problems. The film indicates some of the emotional problems of adolescence and the futility of trying to solve them by a form of self-destruction—i.e., by overindulgence in alcohol. The story is about Phil Martin, a normal teenager who has the misfortune to disgrace himself at his older brother's engagement party. Throughout the evening he is given proof that no one understands his feelings; more and more he is made to feel like a child. Before the party is over his attempt to prove he is an adult results in his reducing himself to childish helplessness.

Tape recording: *Now I Can See.* For information write The Hour of St. Francis, 218 East 12th Street, Los Angeles 15, Calif. Five inch reel; running time, 13½ minutes; rental, transportation only.

DESCRIPTION: One of "The Hour of St. Francis'" most telling stories about mothers and children has brought from a listener her stirring experience with the baby everyone called useless—a mongoloid. Ann Blyth stars as Mrs. Gregory. She relates how a routine medical checkup of her baby changed her from a proud mother to a heartbroken and despairing woman. Slowly she gropes her way to a spiritual awakening for herself and her family.

Filmstrip: *What About Johnny?* For information, write to source: Production Unit, San Diego County School, 209 Civic Center, San Diego 1, Calif. Color; silent; 52 frames; purchase price, $5.

DESCRIPTION: *What About Johnny?* is a 52 frame filmstrip presenting the program for educable mentally retarded pupils in San Diego County and California. A narrator's guide comes with the strip describing the various frames. The strip presents the legal responsibilities for the establishment of programs for the mentally retarded; the

objectives of the program; the selection and placement of pupils in special training classes; the organization of various curricular activities including social studies, health education, arithmetic, manual skills, recreational activities, and citizenship. Guidance aspects culminate the strip.

Film: *You and Your Ears.* For information, write to source: Modern Talking Picture Service, 3 East 54th St., N. Y. 20, N. Y. Color; sound; running time, 10 minutes; rental, transportation only.

DESCRIPTION: In cartoon sequences, narrated by Walt Disney's character, "Jiminy Crickett," this picture shows the historical importance of hearing. Cut-away diagrams of the ear and total auditory mechanism are presented. Further sequences show the source of sound, sound waves, and their effect on the ear. Anatomical cartoons show the role of various portions of the auditory apparatus. There is a lengthy presentation of the function of the semi-circular canals and their relationship with the brain.

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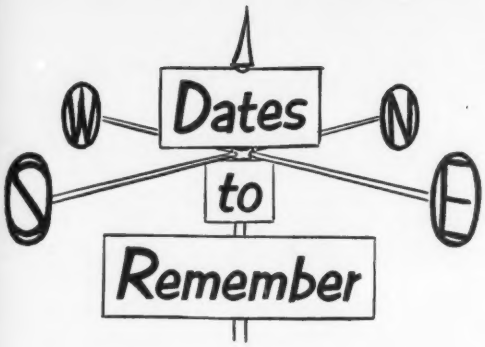

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June 15-20	American Physical Therapy Association. Olympic Hotel, Seattle, Washington
June 15-July 4	National Training Laboratory in Group Development, Bethel, Maine
June 16-18	International Society for the Welfare of Cripples Council, Charleroi, Belgium
June 20-24	International Association of Workers for Maladjusted Children, Palais de Beaulieu, Lausanne, Switzerland
June 22-26	American Association of Instructors of the Blind, Wash. State School for the Deaf and the Blind, Vancouver, Wash.
June 22-26	Student Council Convention, National Association of Secondary School Principals, NEA, Ferguson, Mo.
June 22-26	Student Council Convention, National Association of Secondary School Principals, NEA, Ferguson, Mo.
June 22-27	The Volta Bureau, Pittsburgh
June 24-28	National Commission on Teacher Education and Professional Standards, NEA, Bowling Green State University, Ohio
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